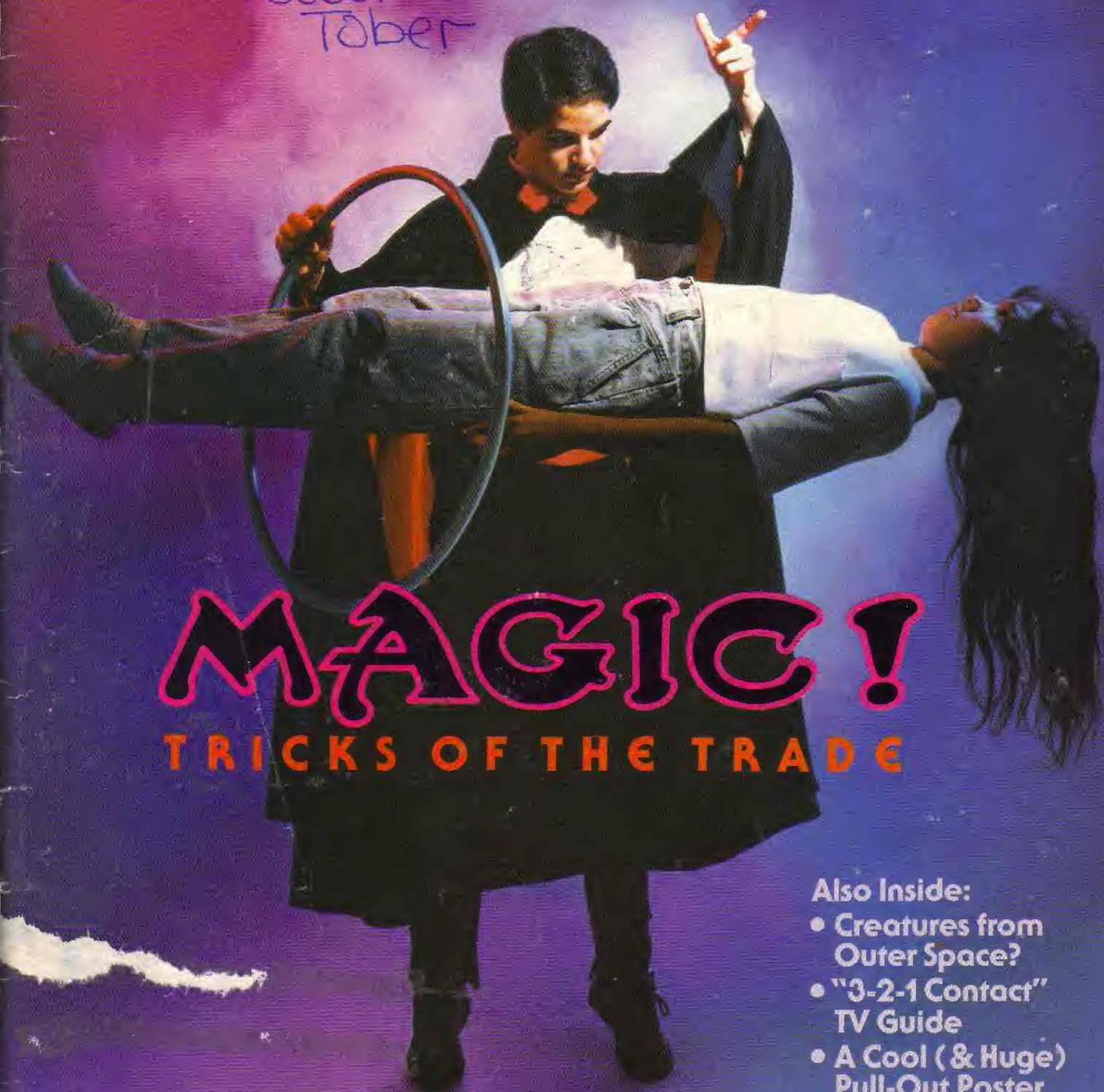


3·2·1·Contact®

Andrew
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MAGIC!

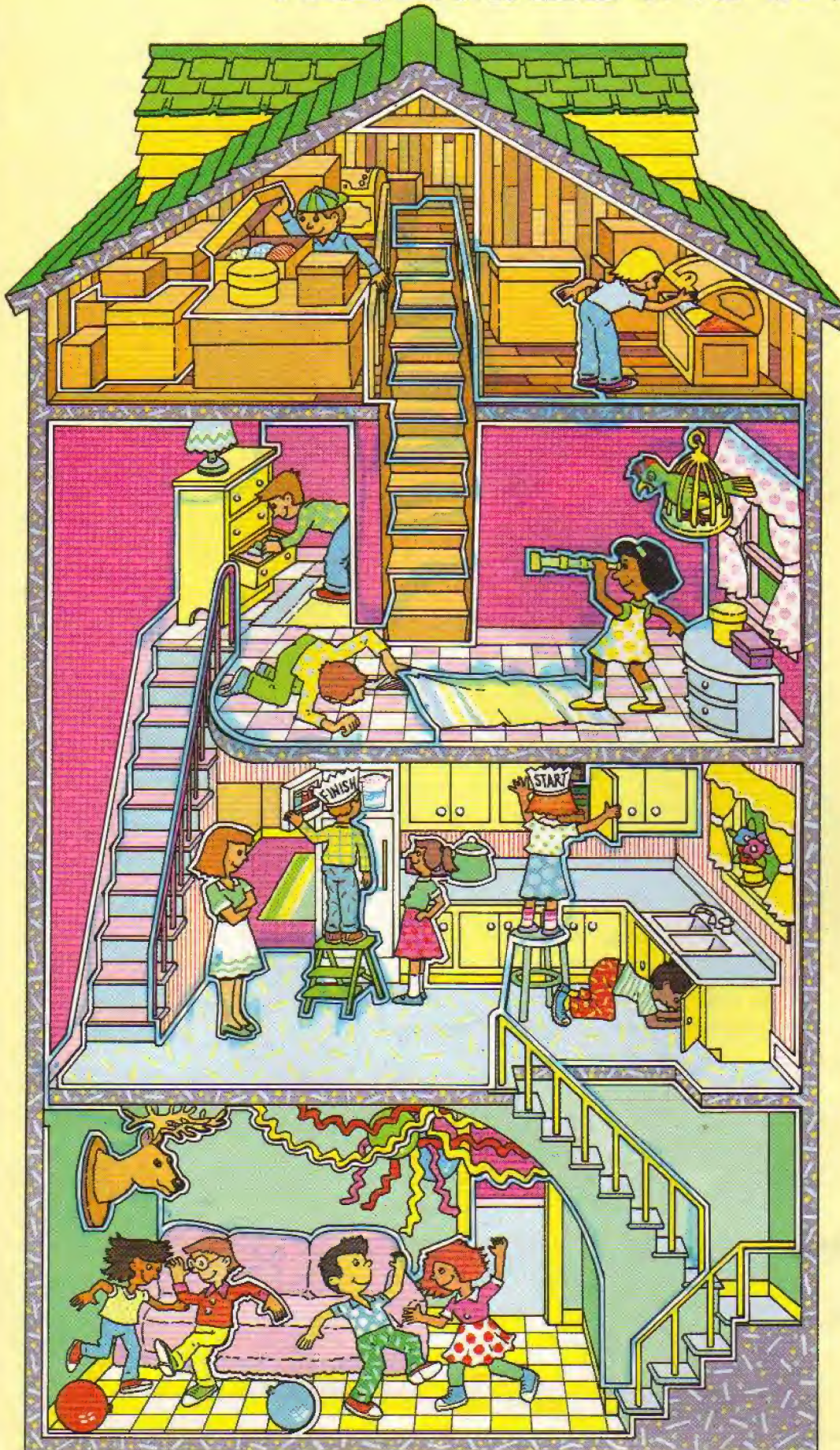
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- Creatures from Outer Space?
- "3-2-1 Contact" TV Guide
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Plus a Giant Fold-out Poster!

Cover: The magician on our cover is
Vinnie Giordano, 16. Dawn
Santana is the girl being "levitated."
Nick Koudis Photography.

Flying Car!

The only place you might expect to see a flying car is in a cartoon. But recently a flying machine that looked like it was right out of *The Transformers* got off the ground in California.

The inventor, Paul Moller, has been building flying cars since 1965. He has built several versions, one of which couldn't fly at all. But the latest model, the 200-X, may be the start of something big—a flying car that anyone could drive.

The 200-X has eight noisy engines which are equipped with fans. Turn on the engines and the fans force air downward. That pushes the car up and off the ground. When the fans are redirected, the car goes forward.

In February, Moller took the 200-X for a short test drive—very short. The flying car flew about the length of a car and only a foot off the ground.

But Moller hopes his flying car will eventually cruise high in the air at about 125 m.p.h.

Story suggested by Ferran Robinson, Lexington, KY.

Dino-mite Discovery

When a dinosaur skull was found in Montana 46 years ago, few paid much attention. Paleontologists (people who study dinosaurs) thought it came from a dinosaur they already knew a lot about. The skull was in storage at the Cleveland Museum of Natural History when Dr. Robert T. Bakker noticed it last year.

Dr. Bakker thought the skull had the wrong label. So he and two other experts took a closer look. They studied the skull for about a year.

What did they find out? They learned that the skull belonged to a dinosaur that no one ever knew about before. The new dino was a smaller relative of the *Tyrannosaurus rex*.

Dr. Bakker thinks that the discovery of a new dinosaur species means that there were more kinds of dinosaurs than we know about. "Some of the best dinosaur hunting is in old museum collections," said Dr. Bakker.

Story suggested by Mateo Centeno, San Antonio, TX.



ILLUSTRATION BY NED SHAW

Sneakin' and Stinkin'

Something was rotten in Montpelier, Vermont, last March. Some smelly sneakers made headline news.

Every year since 1976, Vermont's state capital has been welcoming the first day of spring with a Rotten Sneaker Contest. The top shoe is the best scuffed, worst-smelling sneaker.

This year's winning pair came from the feet of eight-year-old Bob Scruten. Thanks to the family dog, one of Bob's sneakers was well-torn and tattered. And thanks to smelly socks that he had worn over the last two years, the odor of his sneakers could be smelled from several feet away.

The first international rotten sneaker contest will be held in 1989 in Montpelier. Winners of contests from around the United States, Australia, Britain, Canada and Japan will compete for the grand championship.



PHOTO © BOB MCCARTHERY

The Missing Lynx

The lynx is a medium-size relative of lions and tigers. It's doing fine in some parts of the U.S., but not in New York state. Thanks to hunters and loggers, there have been no lynx in New York since the 1800's. Until now, that is.

This year, New York's state university decided to bring back the lynx. But they needed money to do it.

So students at the Roxboro Middle School in North Syracuse, New York, lent a hand. They sold 28,000 candy bars and raised about \$10,000 for the project. That money helped scientists move in lynx from Canada.

When the first lynx returned to New York, the students held a contest to find a fitting name.

Sixth-grader Robby Casey came up with the winner—Searsa—which is an old Irish word for "freedom."



PHOTO: ANIMALS ANIMALS/ILL. RUE IN

ILLUSTRATION BY CHRIS SCHMIDT



Having A Ball

When Mark Harwell runs in a marathon, he really has a ball—a basketball, that is. Because as he runs, he dribbles. Harwell has been bouncing basketballs for charity for years. He has bounced his basketball up the steps of tall buildings. He has bounced it in the Los Angeles Marathon.

There, his brand-new basketball turned black with dirt by the time he crossed the finish line in 4 hours, 29 minutes and 16 seconds.

It takes less time for Harwell to bounce a ball up the stairs of a 30-story building—about four minutes. "Once you get the hang of it," he says, "dribbling up steps is pretty easy."

Harwell knows it won't be as easy to dribble a ball up Mount Kilimanjaro, the highest mountain in Africa. But he hopes to try it this fall. And when he does, it will be with a bounce in his step!

Dig Berg

The largest iceberg recorded in the last 25 years is floating off the South Pole. The iceberg, called B-9, measures about 96 miles long and 22 miles wide. It is twice as

big as the state of Rhode Island.

"The iceberg is constantly moving," Randall Spink told CONTACT. Randall works for the U.S. government, helping to keep track of roving icebergs like B-9.

Even though B-9 is always on the move, it will take the big berg about 10 years to travel to the open sea. That means that it won't be a threat to ships for a long while. Meanwhile it floats among other icebergs off Antarctica.

"It appears to be brushing against the bottom of the sea," Spink said. That would make the iceberg about 1,000 feet tall. If all that ice were melted it could supply enough water for the city of Los Angeles for more than 600 years!

Story suggested by Christy Russell, West Liberty, KY, and Kathy Schinke, Appleton, WI.

Cool Poster

Turn to page 20 for a colorful poster. It's in honor of "3-2-1 Contact" TV's new season which has a whole week devoted to Antarctica.

So What's New?

You tell us and you'll get a nifty CONTACT T-shirt—if we print your story. Send us any science story from the news that you think our readers would like to know about. (Be sure to tell us your T-shirt size and where you heard the story.) Send to:

TNT 3-2-1 CONTACT Magazine
1 Lincoln Plaza
New York, NY 10023

HOW'S TRICKS?



PHOTO COURTESY ERIC WEBER

CONTACT REVEALS THE SCIENCE BEHIND
MAGIC!

by Eric Weiner



PHOTO THE STOCK MARKET/CHRIS ROGERS

Left: A magician turns an orange into—abracadabra!—seven red balls. **Below:** David Copperfield, one of the world's most famous magicians, does something that no one but a professional magician should attempt!

David Copperfield can make the Statue of Liberty disappear. Just like that.

He can float over the Grand Canyon.

Sound unbelievable? It is. But when a great magician like Copperfield does his amazing tricks, they *look* real.

Just as it looks real when Harry Blackstone, Jr. makes his 8,000-pound elephant, Misty, vanish. Or when Penn & Teller take a woman from the audience and float her four feet above the floor. Or when Teller escapes from a straightjacket while hanging upside down over a row of wooden spikes.

How do today's star magicians fool us? With skill, practice, and psychology—the science that studies the way people think and feel. With the help of psychology, magicians have found ways to make people seem to walk through walls, fly, even get cut in half and get put back together—without getting hurt!

Nimble Thimble

You've probably heard the saying, "The hand is quicker than the eye." Magicians say it a lot. It's not true.

Al Kalan, a magician, puts a thimble in his hand, makes a fist, and opens his hand again. The thimble is gone. "Your eye is definitely quicker than my hand," he says, pulling the thimble out of mid-air. "But you don't know where to look!"

Left: Not everyone can stick a pin in a balloon without popping it. That's why Clayton Egner, 12, of Lakewood, CO, is known as "C.J. the Great."



PHOTO COURTESY MICHAEL STERLING PR

When you watch a good magician perform, the magician is controlling where you look. At the important moment, the magician makes sure you look in the wrong place.

Suzanne Thomas, 14, a magician in Raytown, Missouri, told CONTACT: "I do a trick where I make a silk scarf disappear. To do it, I have to keep the audience's attention on one scarf while I sneak another one someplace.

"That's the hard part. Keeping their ➡

attention. I have to wave the scarf back and forth. Their eyes will follow anything I move."

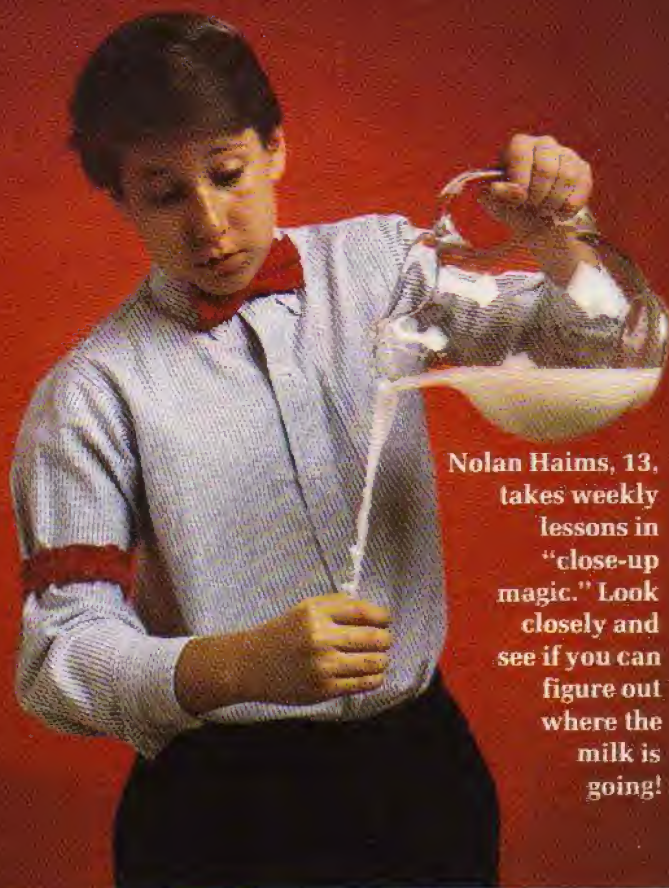
Harry Blackstone, Jr. is one of the world's best-known magicians and a star of "Square One TV." According to Blackstone, there's a simple way to control someone's attention: Make eye contact. When you make eye contact with someone, they look back at you. That means they can't look elsewhere—where the trick is being done.

Ricky Jay is one of the world's experts at sleight-of-hand—tricks with small objects like cards. He told CONTACT that some of his tricks work because people are forgetful.

"The brain doesn't remember everything it learns," explains Ricky. "Your mind is always filtering stuff out.

"For instance," he says, taking a deck of cards out of his pocket. "If I were to take these two cards—" He picks out the nine of clubs and the eight of spades. "And if I hid them somewhere in

PHOTO BY NICK KOUJIS



Nolan Haims, 13, takes weekly lessons in "close-up magic." Look closely and see if you can figure out where the milk is going!

In their stage show, Teller has about 30 seconds to get out of his straightjacket before his partner, Penn, drops him.

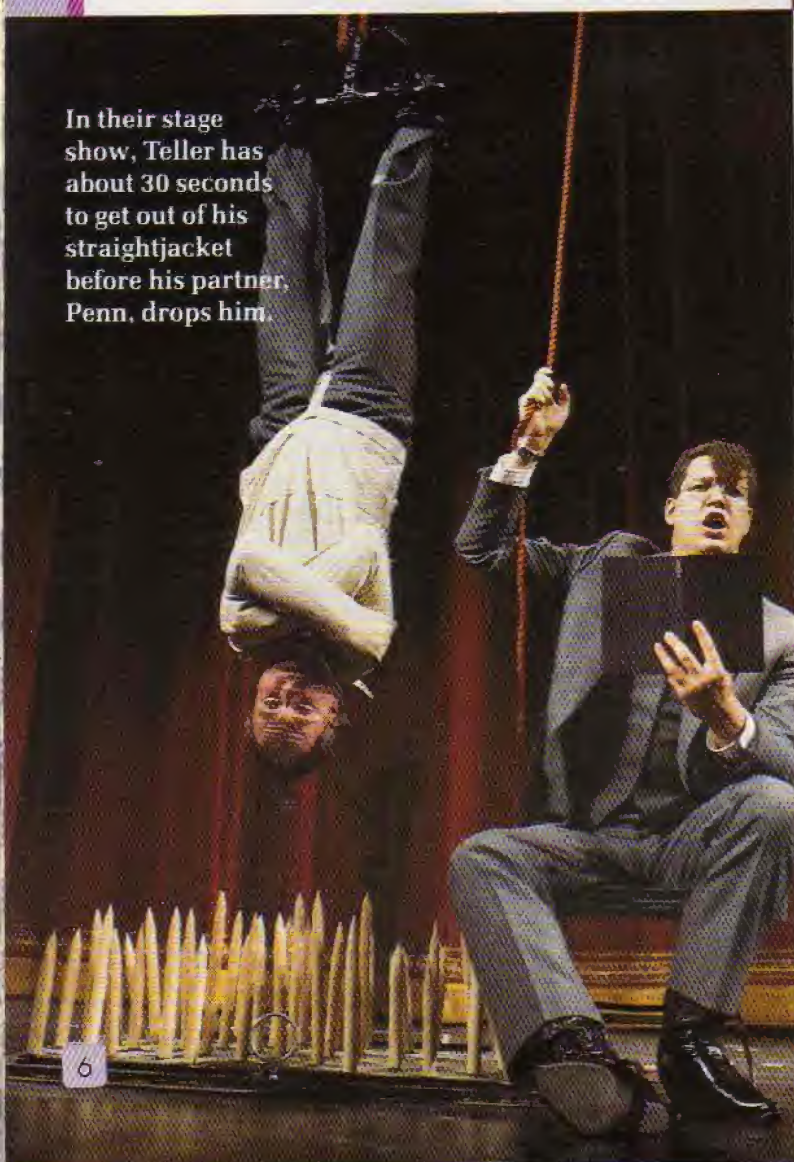


PHOTO © EMMETT MARTIN

the deck..."

He buries the cards in the middle of the deck.

"Now wouldn't you be surprised if you found those same cards on the top of the deck?"

Casually, Ricky turns over the top two cards. It's the nine of spades and the eight of clubs!

STOP—BEFORE READING ON, CAN YOU FIGURE OUT HOW RICKY JAY DID THIS TRICK? READ THE DESCRIPTION OF THE TRICK AGAIN...

The cards Ricky turned over on top of the deck *looked* like the first two cards he picked out. But they weren't the same. He hid the nine of clubs. He turned over the nine of spades. He hid the eight of spades. He turned over the eight of clubs. To set up for the trick, all Ricky had to do was start with the nine of spades and the eight of clubs on top of the deck.

And for My Next Trick

Wouldn't it be cool if you could walk through walls, slip out of ropes and chains, and read people's minds?

If you answered yes, you'd better watch out. The magic bug may be about to bite you.



In his world-famous stage act, Harry Blackstone, Jr. turns his wife into a Bengal tiger!

Two years ago, when she was 12, Suzanne Thomas saw David Copperfield's magic show. She went straight to the magic store.

"I bought two little wands that collapse," Suzanne told CONTACT. "I showed them to a couple of kids who live next door to me, and they were really amazed. They thought it was real magic."

Suzanne enjoyed amazing her neighbors so much that she started practicing magic every night. Now she performs at birthday parties, and uses the money she makes to buy more tricks. She also joined the Society of Young Magicians—a group that helps young magicians polish their craft.

"When people find out I'm a magician, they always ask me to do a trick. You have to be ready to do one on the spot. I usually carry a deck of cards, or I do a math trick. Because then all you need is pencil and paper." ➡

The year is 1914. Handcuffed and shackled, Harry Houdini is about to be locked inside that wooden crate. Then he'll be thrown overboard. And then... he'll escape.



PHOTO THE BETTMANN ARCHIVE, INC.

Doing tricks may be fun, but it takes work—lots of it. Blackstone sometimes practices a new trick for six years before putting it into his show.

Lisa Menna, a professional magician who started doing tricks when she was nine, says: "The hardest thing about magic is getting your parents to watch the same trick 400 times!"

Magic Past, Magic Future

Penn of Penn & Teller says, "I got interested in magic when I was 12 and I read a biography of Harry Houdini."

Houdini, one of the world's most famous magicians, performed in the early 1900's. He escaped from handcuffs, ropes, straightjackets, sacks, trunks, mail bags, coffins, locked prison cells, and sealed crates thrown into rivers. He even escaped from an airtight giant football!

But magic history—and lots of Houdini's tricks—go back way before Houdini. In fact, magic historians think that some magic tricks go all the way back to ancient times.

And sometimes, magicians have led the way for scientists. For instance, magicians used to have fake speaking machines in their shows. Then Alexander Graham Bell set out to design a real speaking machine—the telephone.

Because of this connection between magic and science, Doug Henning, the famous magician, says, "The magic of today is the science of tomorrow." For instance, mind-reading is just a trick right now. But Henning feels that someday scientists will find a way to read minds for real.

Even if that happens, though, magicians won't be out of a job. There will always be new tricks to keep people wowed.

Blackstone told CONTACT that he is now working with computer scientists to design a far-out trick. He wants to perform on stage with a live 3-D cartoon! The cartoon figure will be projected with lasers—a special kind of light beam.

How soon will the magic cartoon be finished? Blackstone says that all he needs now is "two and a half million dollars!"

But what about the far future? What kinds of tricks will magicians do in, say, the year 3000?

Martin Gardner, an expert on science, math, and magicians, has suggested some tricks to challenge the magicians of the future. He'd like to see a magician turn the Washington Monument upside down and stop the Earth from spinning! ☞

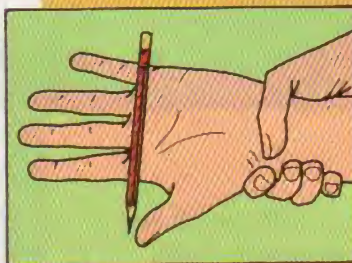
Magic Club

If you're interested in magic and are between 9 and 16, you can join the Society of Young Magicians. For more info, write to:
Frank Buslovich
SYM Membership Development Chairman
P.O. Box 789-TC
Lynn, Massachusetts 01903

Try This Trick!

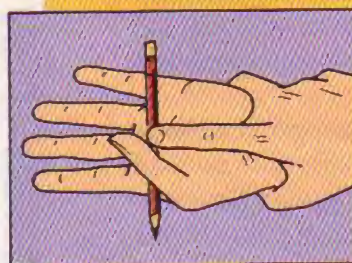
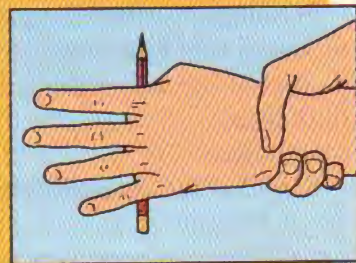
Here's a simple trick that Blackstone recommends for beginning tricksters:

Announce that you can make a pencil float in the air. (You can use a magic wand if you've got one.)



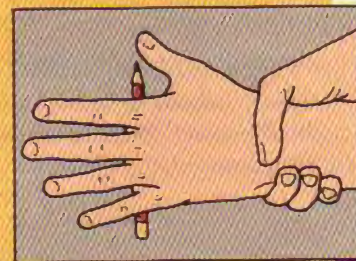
- 2.** Now explain that the only way to keep the pencil from falling would be to hold it with your thumb. To show what you mean, hold the pencil with your thumb and turn your hand over.

- 1.** Stick out your hand palm up and lay the pencil across your fingers. Explain that you need to hold your hand very steady. Hold your wrist with your other hand, like this.



- 3.** BUT, as you turn your hand over, slip your index finger under the pencil. The underside of your hand—which the audience can't see—now looks like this.

- 4.** Now you can say that if you concentrate very hard, you can lift your thumb without the pencil falling...Shazam!!



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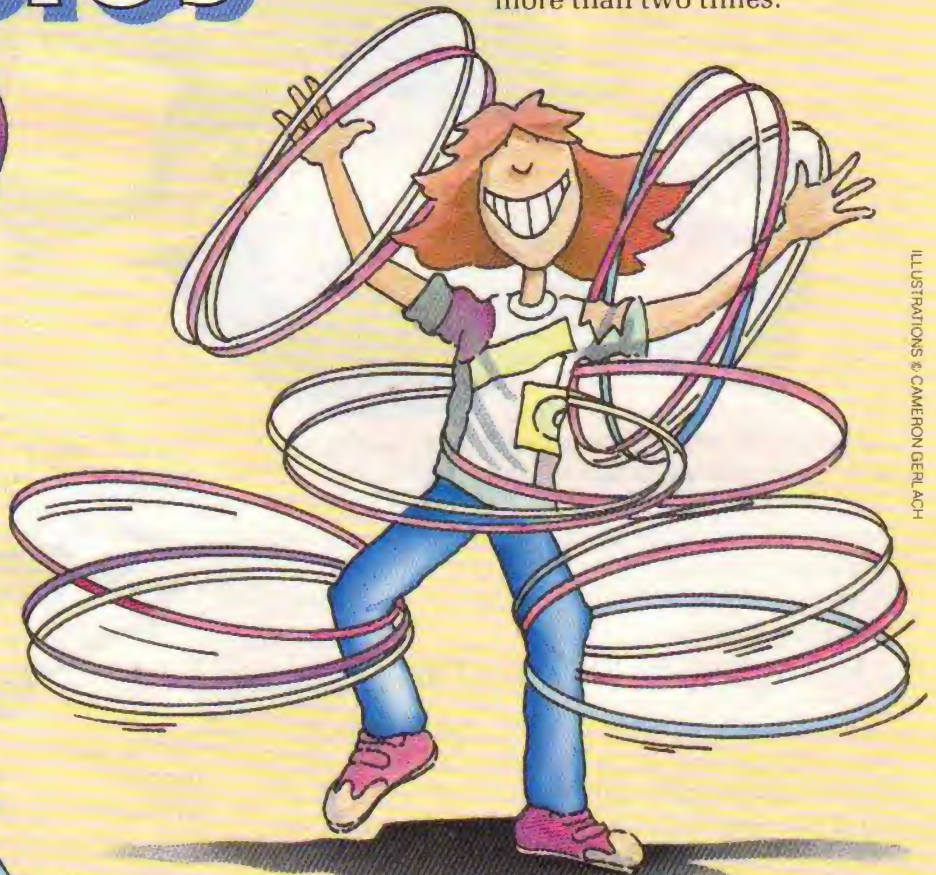
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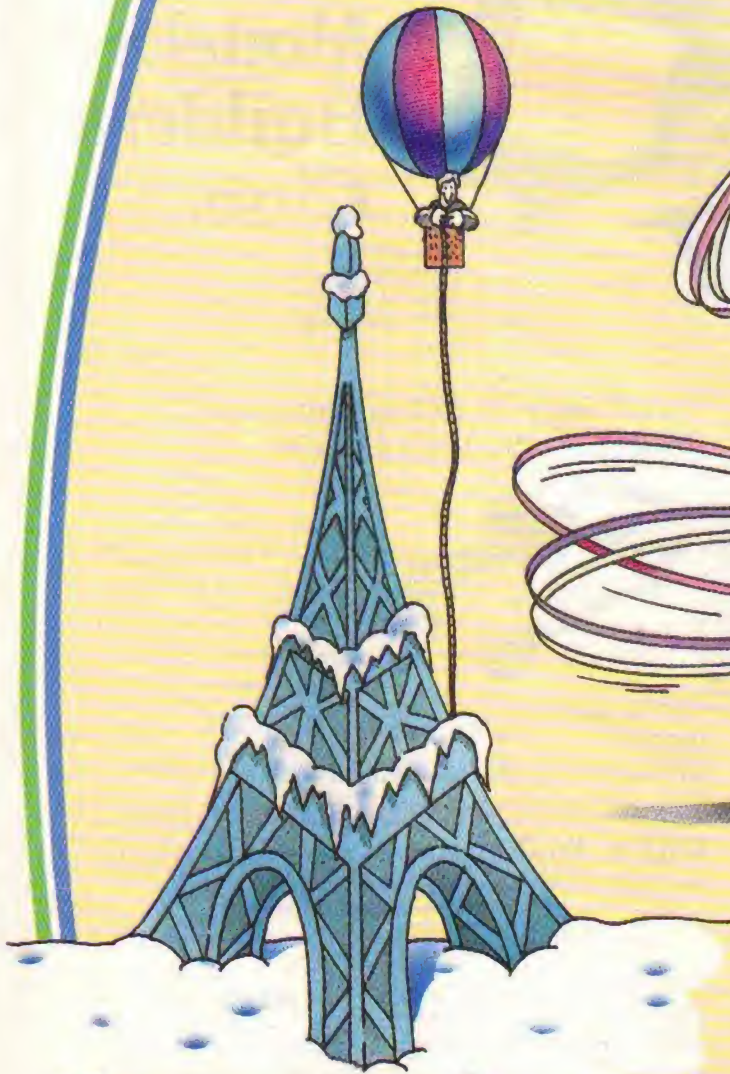
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Factoids

If all the Hula Hoops ever made were placed side by side, they would wrap around the world more than two times.

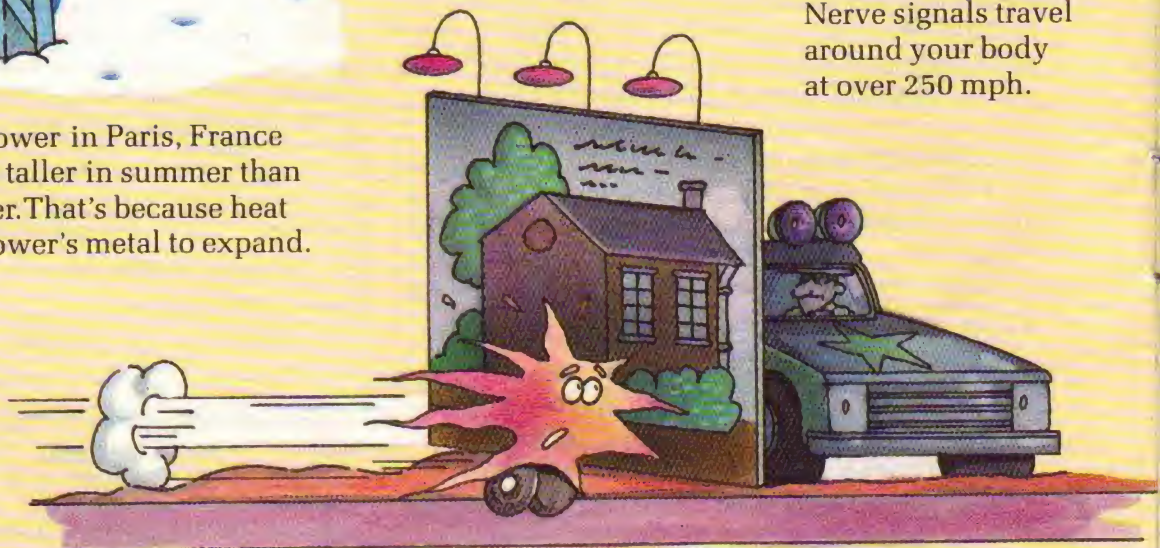


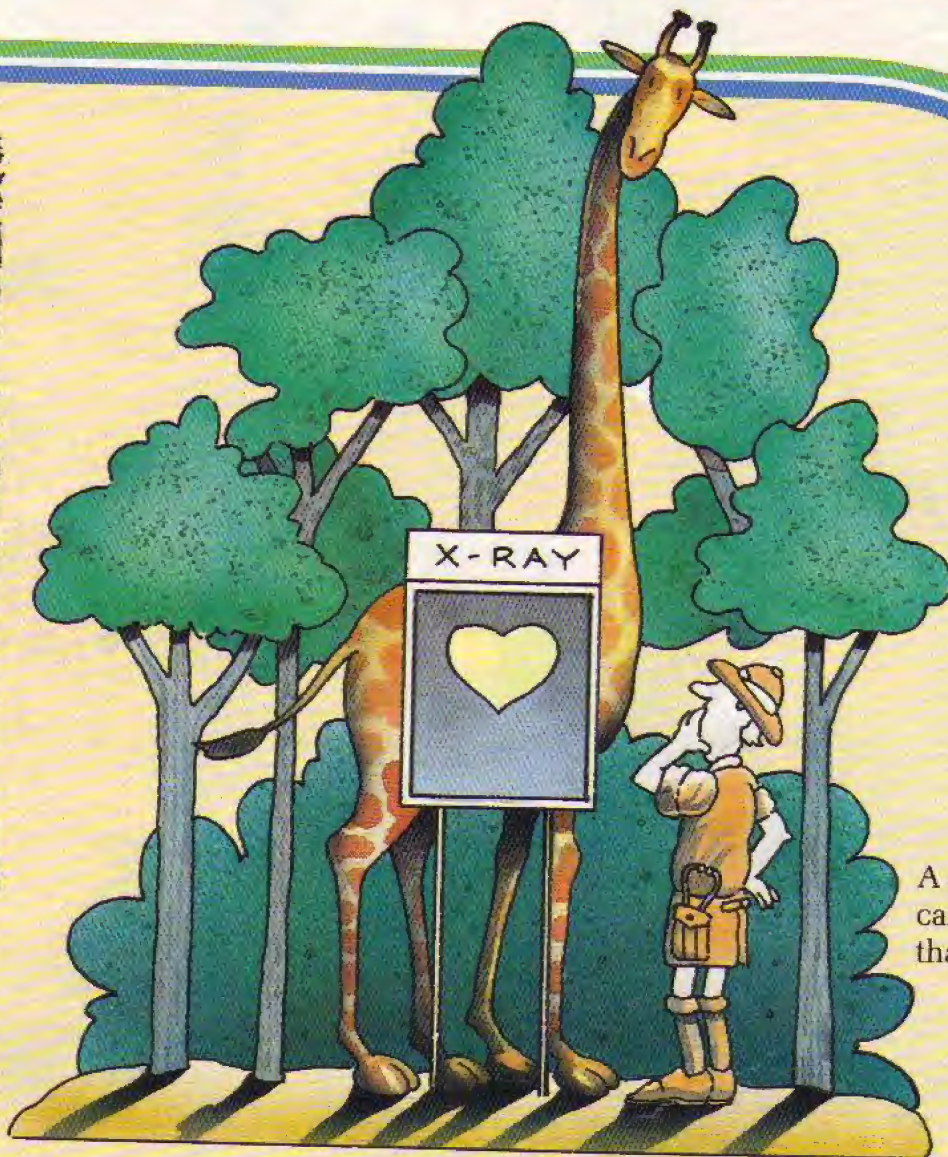
ILLUSTRATIONS © CAMERON GERLACH



The Eiffel Tower in Paris, France is six inches taller in summer than it is in winter. That's because heat causes the tower's metal to expand.

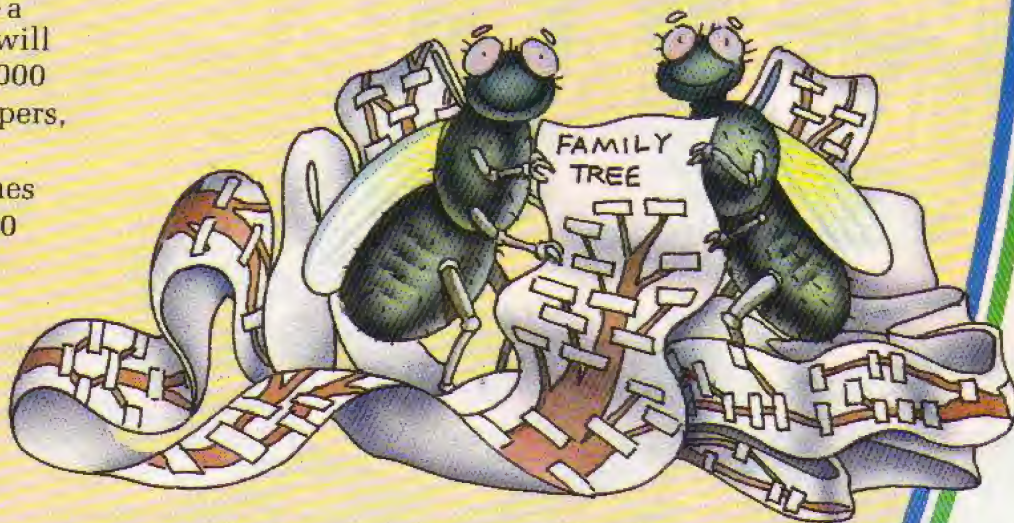
Nerve signals travel around your body at over 250 mph.





A giraffe's heart can weigh more than 25 pounds.

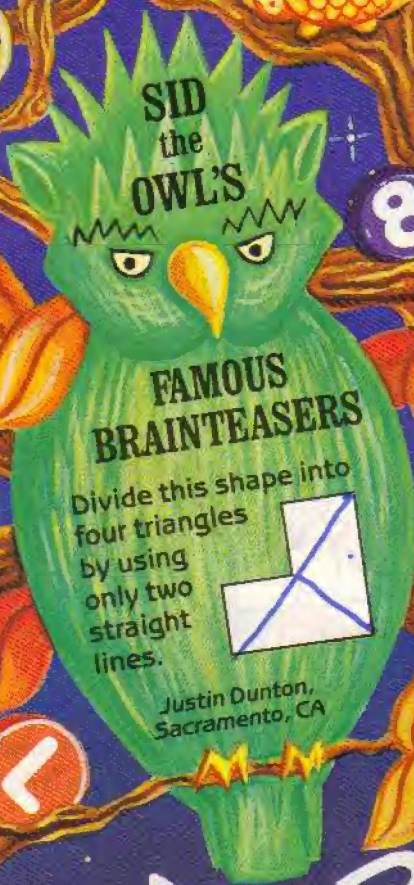
In an average lifetime a person will read 14,000 newspapers, 6,000 magazines and 1,000 books.



A pair of houseflies can have more than six-and-one-half billion descendants in one year.



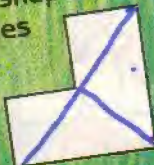
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Anyone who sends in word games, etc., consents to their use and the use of his or her name in future issues of the magazine without further compensation.

N

O

A

BATTY WORDS

The answers to this puzzle are the same across and up-and-down. We've given you a couple of letters to get you going.

A _ _ _ _
_ _ _ _ _
E W _ S

Clues

1. A large piece of land.
2. A big black bird.
3. Twine, rhymes with hope.
4. Female sheep, rhymes with pews.

Fun Places to Eat Sunkist® Fun Fruits® Fruit Snacks

- When you go out to trick or treat
- Sitting on a trunk in an attic
- On top of a pile of leaves
- While you're wishing for a sunny day

LETTERMANIA

The letters in the Tickle Tree are all mixed up. Can you put them in the right order?

FACTOSAURUS

What has toes and comes in all shapes and sizes? Dinosaur feet! The Theropods had feet like bird claws. The Sauropods' feet were broad and padded like an elephant's. And the Prosauropods walked on feet with clawed toes. The other dinosaurs had hoof-like feet with either three, four or five toes. The different types of feet made tracks that are important clues in the giant puzzle of dinosaurs.

Rocket Riddles

What's the best time to eat a fun fruit?
James Alan Hart, New Canaan, CT

Rocket Riddles: When it's eight (ate)
Lettermania: HALLOWEEN
Batty Words: A C R E
R O P E
E W E S



ANSWERS:
Sid the Owl's Famous BrainTeasers:



Horsing Around

WHY by Deborah Heiligman
ANIMALS
PLAY

- Six deer come charging up a wooded hill as fast as they can. They are not running away from a hunter. They are not trying to catch anything, either. So what are they doing?

- Lantar, a tiger at the Philadelphia Zoo, ignores visitors as he bats his huge "boomer" ball around his cage. Even when he's tired, he nuzzles the ball with his nose. What is he doing?

- Two brown bear cubs stand facing each other in the woods. They open their mouths wide, showing sharp teeth. One of the bears grabs the other's cheek with one paw. Soon they are locked in what can only be called a "bear hug." They push and shove until they tumble to the ground. What are they doing?

It probably doesn't surprise you that these animals are all playing. You've seen animals play. Maybe you've watched a kitten get tangled up in a ball of yarn on purpose. Or a dog leap high into the air to catch a Frisbee in its mouth.

Animals at play are cute and fun to watch. But animal play is more than just fun and games. To scientists, it's serious business. In forests, jungles, zoos, and laboratories, scientists have been studying the subject for years. They are trying to answer the single question, "Why do animals play?"

Games Animals Play

First of all, not all animals play. Robert Fagen, an expert on the subject, believes that only birds and mammals do. Insects, fish, and reptiles don't play, says Fagen. And, just like kids, animals that do play, play in a lot of different ways.

Horses, deer and antelope often chase each other, run up and down mountains and cliffs, and charge at trees. Lambs and colts leap and run in fields.

Bears, wolves, dogs, monkeys, and many other animals play-fight. Scientists make videotapes

Right: Kangaroos can be taught to box. But when they play-fight in the wild, kangaroos swipe with their tails and kick with their feet.

Below: Two Alaskan brown bears give each other a "bear hug." They're also practicing for real fights.

PHOTO FRG © RANDALL HOOVER



PHOTO FRG © GALENA ROWELL

of their "matches" and study their moves.

"Wolves," says Fagen, "use a kind of judo. They shift their weight ever so slightly, and apply force to overcome their opponent with very little effort."

According to Fagen, bears are wrestling experts. In fact, Fagen hopes someday to get trained boxers and wrestlers to help him study the bears' play-fights!

How can people tell if bears are play-fighting or fighting for real? Fagen told CONTACT, "I study brown bears in Alaska. I've seen a lot of bear fights. And I can tell you that the speed of the action in a real fight is very different: Real fights are a lot faster than play-fights."

Usually, wild animals play only with others of their own species. But Alaskan brown bears have another kind of playmate. Fagen often sees bears playing with ravens. "I will see a bear chase a bird, not to catch it, but just for play. I've noticed that if the bear gets distracted and stops chasing, the raven will actually swoop down and try to get the bear interested in the game again."

Fagen has also observed ravens playing by themselves. "I've seen a raven roll in the air with a stick in its beak, drop the stick, then dive on it in mid-air. Then they do the whole routine all over again. Ravens seem to play a lot." ➔

The Big Question: WHY?

So why do animals play? Experts find this hard to answer. One problem is that animal play is difficult to study.

Robert Fagen told CONTACT, "The problem with studying brown bears is that they don't play a lot every day. In a bad year, when food is hard to find, they don't play at all. And even in a good year, a bear will only play for a couple of hours a day. So you have to catch them at exactly the right time to watch them play."

Maxine Biben, who studies the way squirrel monkeys play, agrees: "My monkeys play a lot in the wild—as much as eight hours a day. But I study them in cages, and it's hard to make them play when you want them to. So I have to sit around and watch their cages, waiting for them to play."

"I'm lucky with these monkeys, though. They play in the middle of the day. I've studied animals that would only play at four in the morning!"

Even when you see an animal playing, it's

very difficult to say why it's playing. But Biben has a theory. "I've noticed that when two monkeys are play-fighting, they take turns winning. One will be on top, and it will look like he's 'winning' the fight. Then all of a sudden, he'll let the other one control the action."

Biben thinks that that kind of play helps the monkeys learn to take different roles when they're older. Like humans, sometimes animals have to take charge, and sometimes animals have to follow. Monkeys seem to learn this lesson by playing, which is a lot less upsetting than learning it in the "real" world.

Robert Fagen thinks that brown bears learn by playing, too. "Brown bears play to develop some very basic physical and social skills. They learn how to use their bodies in ways that will come in very handy when they have to fight off other animals, or search for food, or find a mate."

Judi Sweet is a psychologist. She thinks that play is one way animals learn to get along with others their own age.

No one is chasing these impalas. The herd is just out for a jog!





PHOTO ANIMALS ANIMALS/STOCK PHOTO

Above: Two Siberian tiger cubs play king—uh, tiger—of the mountain.

Right: Who cares if a gray wolf pup bites you on the nose....as long as it's just playing!


PHOTO ANIMALS ANIMALS/STOCK PHOTO



Sweet has studied rats playing. She found that if she put a baby rat in a cage with a normal litter (a mother and seven brothers and sisters), the baby rat did a lot of rough and tumble play.

But baby rats who were alone with their mothers played just a little, and much more quietly. It seems that even a baby rat needs "a friend" to play with.

Luckily for the rats, Sweet found that being alone didn't harm them. "When the 'solo' rats were a little older I put them in with a group," says Sweet. "You know what I saw? They made up for lost time! Those rats played a lot more than the rats who were raised with a litter." They just learned how to get along with other rats at an older age.

In the end, no one knows exactly why animals play. Fagen told CONTACT, "It's pretty certain that animals learn by playing." But Fagen thinks that animals play for another reason, too—one that you don't have to be an expert to understand: "Because it's fun!" 

Reviews

Game

Star Traders

Steve Jackson Games
Austin, Texas
\$21.50

This is a game about the business of space travel in the year 3250.

You make money by carrying robots, computers, fungus and other strange cargoes all over the galaxy. You can also build a better spaceship and set up space stations that other players have to pay to use.

Once you are rich enough and you have built a fast enough spaceship, you can ask the Emperor to send you on a special mission. The first person to complete the mission wins the game.

You might want an adult to help you learn the rules at first. But once you get going, it's pretty easy to play. There are also separate rules for advanced play which makes a longer, more challenging game.

—Russell Ginns

Software

NBA

Avalon Hill
\$38, Apple II

This new video game is based on basketball statistics—numbers and figures. So it's more important to know about basketball strategy than to be good with a joystick.

You control one of 20 famous teams from the 1965-66 Philadelphia 76ers to the 1985-86 Boston Celtics. You can play against the computer or against a friend.

Although NBA has animated color graphics and sound effects,

the motion of the players is not directly controlled by you. Instead, you choose the play, then watch what happens. The outcome is always judged by the computer based on the statistics of the players involved.

As the "coach," you have to know basketball strategy and your players' strengths and weaknesses. It's important to keep track of how tired your players are becoming, too. You don't want to have to pull your star player out of the game in the exciting and important final seconds.

—Phil Wiswell



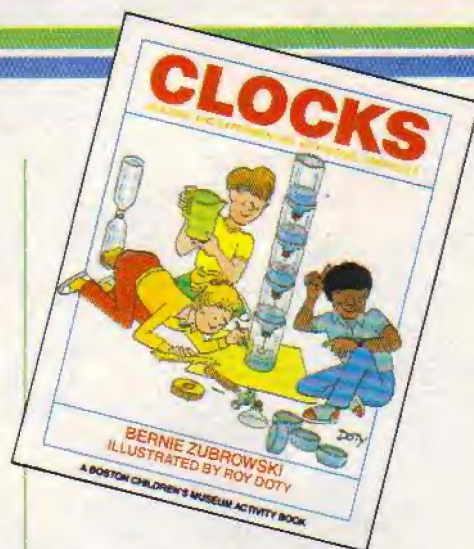
Books

CLOCKS

by Bernie Zubrowski
William Morrow and Company, Inc.
\$6.95

How did people tell time before there were digital clocks or watches? They used the sun, the moon, sand and even tubs of water! With this book you won't just learn about strange ways to tell time, you'll learn how to build your own clocks that really work.

Clocks has directions to build 20 different timekeepers using rubber tubing, plastic cups and empty milk cartons. Some of them, like the "Moon Position Finder," are pretty easy to put together. Others, like the "Floating Valve Water



Clock," are very complicated.

If you like to build unusual machines, we think you'll want to take time out for this book!

—R.G.

SKELETON

by Steve Parker
Alfred A. Knopf, \$12.95

Here's a book that explains why animals look the way they do on the outside by showing you how they look on the inside.

Skeleton has hundreds of photographs of real skeletons, so you can really see for yourself. And it's full of interesting facts about seals, frogs, cats, monkeys, humans and dinosaurs.

You don't have to be crazy about bones and skeletons to love this book. It's for anyone interested in animals, the human body or anyone who wants to take a close look at an ostrich's toe.

—R. G.



What if... Creatures Lived on Other Planets?

by Russell Ginns

Illustrated by Kevin Gunning

So far, Earth is the only planet we know of that has life on it. But what if there were creatures living elsewhere? For some Halloween fun, CONTACT takes a look at make-believe aliens.

Remember, even if there are alien life forms, they probably wouldn't look like the ones we've come up with. As Dr. Bill Gutsch, an astronomer at the Hayden Planetarium, told CONTACT: "On Earth, there are ants, giraffes and humans. We all share the same atmosphere but each species looks different. The same could be true of life on other planets—if there is life on other planets!"

So for now, we can't know what aliens would look like unless we met them face to...uh, face! And we hope the only face-to-face meeting with these critters will be when trick-or-treating!

RINGS OF SATURN

There is no oxygen between the rings of Saturn, so our *Red-headed Ringdrifter* would almost always be tucked into a ball. That way it could save up air while its armored plates protect it from rocks and dust. Its 11 sensor tubes might detect a nearby chunk of frozen water. The Ringdrifter would unroll and use its seven-fingered paw to grab the passing treat. Then, the Ringdrifter curls up to enjoy its meal and to go back to sleep. ➔



Below: Titan is an icy moon of Saturn. The average temperature is -290°F . But *Firepods* could live there because they would make their own heat. Our Firepod lives in one of Titan's cold, dark oceans. Long tubes pump in chemicals to burn inside its body and supply the Firepod with warmth and light.

If you look carefully, you can see the shadow of a creature that lives inside the Firepod to keep warm.

TITAN





Left: Jupiter is a ball of swirling gas with no solid land. Anything that lived there would have to be careful to stay at the right height. The lower layers are too hot and the upper layers are much too cold and windy. But for some creatures, the middle layers would be just right. Here, an *Eel-kite* snacks on an *Obnot* while gliding on a 100 mph breeze. It's Jupiter's version of fast food!

J U P I T E R

Right: Thousands of miles below the surface of Uranus, *Cryo-clams* might live in an "ocean" of solid ice. They are just barely warmer than the ice around them. This way they could glide through the ice at a speed of about one inch every 250 years. Because it's so cold, *Cryo-clams* would have very slow body functions and live to be millions of years old. They would hibernate most of the time, and probably dream about life on warmer planets. ➔



U R A N U S

MARS



It's very important for a Martian *Prospector-fly* to know how to dig. That's because it would spend most of the day mining for water. It would use its horns, teeth and all four legs to dig wells into the ground. It could use its tail as a straw to suck water up into its body.

Every night, it would have to burrow into the ground to keep warm during the Red Planet's -80°F . evenings. It's a dirty job, but someone's got to do it!

THE BLOODHOUND GANG

The Hocus-Pocus Heist

by Decky Cheston

ILLUSTRATION BY BOB PEPPER



Well, Ricardo," said Vikki. "I can guess what you're going to be for Halloween."

"What?" asked Ricardo with a small sigh. "A grouch. You've done nothing but mope around the office for weeks."

"It's not his fault," yawned Skip. "We haven't had a case for weeks."

"Excuse me," said a voice at the door. Standing there was a woman in jogging clothes.

"I don't suppose you're a client," said Skip. "Or maybe you've got the wrong office."

"I hope not," said the woman, taking out an identification badge. "Ginny Thomas, from the International Intelligence Bureau."

"The I.I.B.!" said Ricardo, sitting up straight. "That's one of the best private spy outfits in the world."

"Let me get right to the point," said Ginny. "Some top-secret information was stolen last night. We've been hired to get the files back before they're smuggled out of the country. We need your help."

Fair Game

As Ginny rushed the Bloodhound Gang out of the office, she explained that the I.I.B.

had just gotten a hot tip: The stolen information would be passed to a messenger this afternoon at the October Fair. She showed them a small photograph. "We believe this man, Jay Barrister, is responsible for the theft."

The Bloodhound Gang passed the picture around. Jay Barrister was middle-aged with blonde hair, small eyes, and a mole on his chin.

"Just what kind of information did he steal?" asked Skip.

"Sorry," said Ginny. "That's top secret."

At the entrance to the fair, the secret agent said, "Find Barrister." Then, promising to meet up with them later, Ginny disappeared into the crowd.

"Gee," said Skip, looking around at the vast, noisy fair. "Where do we start?"

"Bingo!" said Ricardo.

"There's no Bingo at the October Fair," said Vikki.

"I mean," said Ricardo, "I think I've spotted Barrister already."

He was pointing to a booth labeled "The Amazing Cardullo." There, a dark-haired man in a tuxedo was performing for a small audience. As the Bloodhound Gang moved closer, they could see wisps of blond hair curling out from under the wig. On his chin was the unusual

mole they had seen in Ginny's snapshot.

"Stop gloating," said Vikki. "Spotting Cardullo isn't even half the battle. The hardest part of this case is going to be catching him in the act of passing the stolen files to the messenger."

What A Card

"Well, he's obviously not going to hand over the information in front of an audience," said Ricardo. "So when Cardullo takes a break, I suggest we follow him."

"And in the meantime," said Skip, moving a little closer, "maybe I can get a few pointers for my own card tricks."

"I can hardly wait," said Ricardo. "Remember the time you magically pulled some lint out of a hat?"

"Shhh!" said Vikki. "This guy is pretty good."

Cardullo fanned a pack of cards face down and invited Vikki to come up and pick a card. She pulled out a card. Cardullo divided the remaining cards into two piles at the point where the card had been removed.

"Now," said Cardullo, "I'm going to turn over the top card on this stack." He revealed the king of spades. Shutting his eyes, he placed his hand over the other stack. "The top card here is the eight of clubs."

He opened his eyes and turned the card over. It was the eight of clubs! "Now, I'm going to close my eyes again and tell you all which card this young lady picked."

Cardullo looked like he was going into a trance. Then his eyes popped open and he said, "The eight of hearts!"

He's right!" said Vikki, giving back the card. "That was amazing!" she said when she had returned to the audience.

"Not really," whispered Skip. "Eight kings threatened to save ninety-five ladies for one sick knave."

"I beg your pardon?" said Ricardo.

"That's a saying that can help you remember a certain way of arranging a deck of cards. Here, I'll show you."

As Cardullo went on to a new trick, Skip took out his notepad and wrote out the rhyme. Underneath the rhyme he wrote the names of

the corresponding cards:

Eight kings threatened to save ninety-five

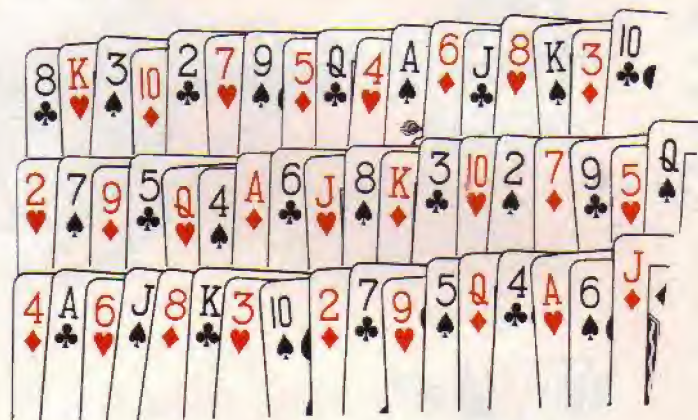
8 king 3 10 2 7 9 5

ladies for one sick knave

queen 4 ace 6 jack

"But that only takes care of 13 cards," said Vikki.

"So, you just remember the word, 'CHaSeD' for the way you arrange the suits: Clubs, Hearts, Spades, Diamonds. Like this," said Skip, taking out his own deck of cards.



"I get it," said Vikki. "When I took a card, Cardullo cut the deck. He knew that the top of one stack would be the eight of clubs. And he knew that my card came right before the top card on the other stack."

"Right," said Skip. "All he had to do was to turn over the top card on one pile, and the saying reminded him which card came before it."

(WHEN YOU'RE DONE READING THIS MONTH'S BLOODHOUND GANG, GET A DECK OF CARDS AND TRY THIS TRICK—IT REALLY WORKS!)

"Check this out," whispered Vikki to the two boys. A clown had joined the audience and volunteered for one of Cardullo's tricks.

"Could be the messenger," said Ricardo. "That clown suit makes good cover."

Cardullo poured a pitcher of milk into the clown's hand. The milk disappeared. Then Cardullo made a bunch of flowers grow on top of the clown's head. Taking a bow, Cardullo gave the flowers to the clown as a gift.

"Maybe the info is in the flowers," said Ricardo.

"He's sure leaving in a hurry," added Skip.
"Let's get him!" hissed Vikki.

But Ricardo was already off and running, falling forward in a tackle which sent both himself and the clown tumbling into a cotton candy display.

When Vikki and Skip reached them, Ricardo's face was as red as the clown's nose.

The clown was flashing a badge. "Read it and weep," Ricardo told Skip and Vikki.

The badge said: "I.I.B."

Switcheroo

"Who would like to volunteer for my next amazing feat of card trickery?" asked Cardullo as the trio returned to their stake-out. Cardullo chose a man standing toward the back. "I will now flip through this pack," Cardullo told him. "You can stop me at any point."

Cardullo flipped through the cards until the man said to stop. The man took his card, dropped it, then picked it up.

"Wait a minute!" said Skip, rushing forward and grabbing the man by the arm.

"What do you think you're doing?" cried an angry Cardullo.

Before the man could protest, Skip pulled an ace of spades out of the man's jacket pocket.

"I'll take that!" said a woman in a cheerleader's outfit. It was Ginny Thomas. In a flash, Ginny grabbed the card while four other agents rounded up Cardullo (also known as Barrister), and the messenger.

"This way," Ginny told the Bloodhound Gang,

leading them away from the crowd.

As they hurried away, Skip explained that the messenger had dropped a card of his own and put Cardullo's card in his pocket.

"The old switcheroo," said Ricardo.

"You're saying," said Vikki, "that this card contains the stolen information? Where?"

"Here!" said Ginny, peeling a small black dot off the large spade on the center of the ace.

"A microdot!" said Skip.

"Of course!" said Vikki. "Barrister had the information transferred onto microfilm so it could be hidden easily. But there's one thing I still don't understand. How did the messenger know how to pick the card with the microdot on it? He chose that card at random."

"But he didn't," said Skip. "Cardullo used a trick called the Slip Force. I learned it from a book on card tricks. Cardullo forced the messenger to take that card."

"But what's on the microdot?" Ricardo asked.

"Well," said Ginny. "Since you've cracked this case, I guess you deserve to know."

The three detectives huddled round the secret agent. She whispered, "Cookie recipes."

"Cookie recipes!" laughed Ricardo. "Why would the I.I.B. care about that?"

"Don't kid yourself, cookies are a million dollar business," said Ginny. "The company that hired us didn't want other companies making cookies just like theirs."

"Hmm, I bet I know the secret ingredient in those cookies," said Ricardo.

"What's that?" asked Skip.

"Microchips!"



ILLUSTRATION BY BOB PEPPER

**Watch for December's
Bloodhound Gang
mystery!**



ILLUSTRATION BY DAVE FEILAND

Any Questions?

By Lisa de Mauro

How does the Earth get its atmosphere?

Take a deep breath. Big deal, right? It's only air. But what air! That special mix of gases is what makes life possible on Earth.

The Earth's atmosphere is a mixture of gases that formed after the Earth did. *Billions* of years ago, our planet was very, very hot. The inside was all melted rock. From this melted rock, chemicals rose to the surface. Some of the chemicals combined to form water. Others kept rising. These became Earth's atmosphere.

At first, there was little oxygen in the atmosphere. Over many millions of years, the amount of oxygen in the air increased.

Today, the Earth's atmosphere is made of several gases. It's mostly nitrogen gas. But there's also oxygen, carbon dioxide, and argon gas. Because of the pull of Earth's gravity, these gases stay put, like a shell surrounding the Earth.

Question sent in by Alex Tsotsos, Palm Harbor, FL.



How do flies walk on the ceiling without falling?

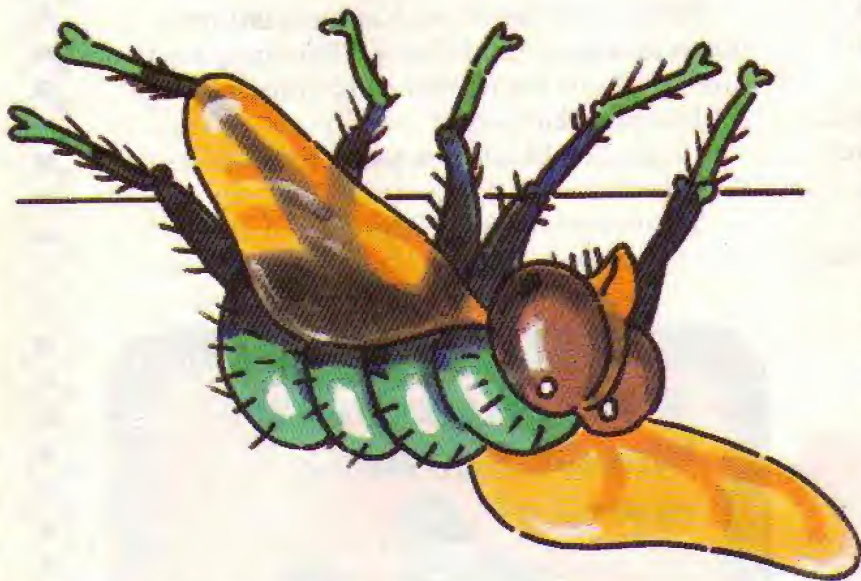
Have you ever wished you could stroll across the ceiling? Or walk up and down walls? Even if you had glue on the bottom of your feet, you couldn't. Unless, of course, you were a common housefly.

At the ends of a fly's legs are hairy little pads called *pulvilli* (pul-VILL-eye). The tiny hairs on these pads give off a sticky substance. The gluey stuff helps the fly stick to smooth surfaces, such as walls and ceilings.

Landing on the ceiling in the first place is quite a trick. First a fly buzzes along close to the ceiling. Then it reaches up with its front feet. When they touch the surface above, the fly flips its body over. And there it is, upside down.

Flies use their talented feet for finding food, as well as for walking on ceilings. Taste cells in the feet tell the fly when it has stepped onto something good to eat. Then it flicks out its tiny trunk-like mouth and quickly sucks up its dinner.

Question sent in by Stacey Lawrence, Buffalo, NY.



Do you have a question that no one seems able to answer? Why not ask us? Send your question, along with your name, address, and age, to:

Any Questions?
3-2-1 CONTACT
P.O. Box 40
Vernon, NJ 07462

Do fish have ears?

If you were a fish, you'd have trouble finding a place to hang your sunglasses. That's because fish don't have any ears—at least they don't have outer ears the way people do.

But, like humans, they have inner ears. Fish can hear sounds in the water around them, on the surface of the water, or on a nearby shore. In order for sound to reach a fish's inner ears, it has to pass through the fish's body.

Fish do have another way of finding out what's going on around them: It's called a *lateral line*.

A lateral line is a row of tubes and tiny openings inside the fish's body. The tubes and openings are filled with liquid. When there are sound waves in the water, the liquid in the lateral line moves. So if a swimmer splashes or a boat sails by, a fish will *feel* the sound waves in its lateral line. The lateral line can help a fish find its dinner or warn it away from danger.

Question sent in by Jenny Bass, Atlanta, GA.



Why do you get a bump when you hit your head?

You drop your fork. You bend down to pick it up. As you come up, BANG!, you hit your head on the table. That hurts! Before you know it you have a bump on your head the size of a small egg. If your hair isn't covering it, you can see that it's red. And when you touch it, it feels hot.

The swelling, redness, pain and heat are ways your body reacts to being hurt. When you hit your head, the blood vessels at that spot get larger. Fluids leak into the hurt area. As a result, you get a bump.

But help is on the way. White blood cells also leak into the hurt area. They are your body's emergency team. They fight infection. The swelling is really a sign that your body is ready to attack invading germs.

Why do you seem to get a bump on the head more often than say, a bump on the arm? Gently knock your arm and your head. Your arm is a lot softer. The flesh on your arm acts as a cushion.

Question sent in by Carolyn Edwards, Lakewood, CO.



ILLUSTRATIONS © BOB DELBOY

The Slipped Disk Show

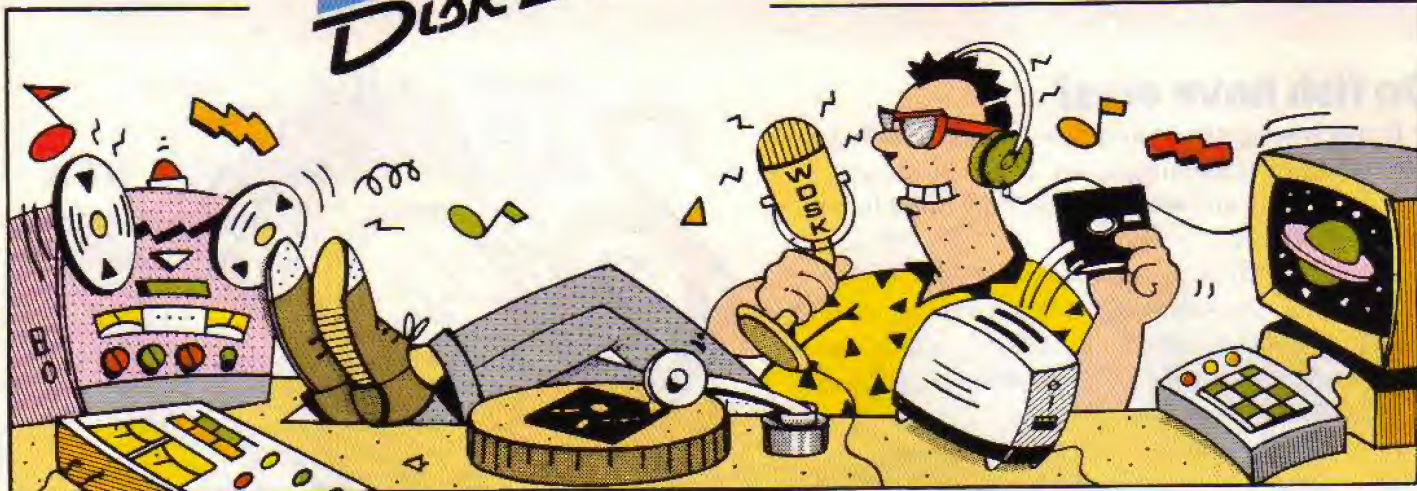


ILLUSTRATION BY CAMERON EAGLE

Hi there, hackers! This is Slipped Disk, floppy disk jockey and world-famous computer expert. Believe it or not, this is another edition of the Slipped Disk Show, the show that not only answers your questions about computers, but is guaranteed not to leave a waxy build-up on your kitchen floor! (Right now, we can't do anything about waxy build-up in your ears, but we're working on that.)

And speaking of ears, I couldn't believe my ears when my assistant, Floppy (who also happens to be my dog), read me our first question. It's from **David Ramirez**, 9, of Norfolk, Virginia. David wants to know:

"What is a laser printer? Do they really have lasers in them?"

David, a lazy printer is someone who is always falling asleep on the printing press. A laser printer is something else. It's a type of computer printer that is becoming more and more popular.

Most computer printers put letters on a piece of paper the same way a typewriter does. A part of the printer in the shape of a letter presses against a ribbon. The ribbon presses against the paper, and some ink from the ribbon sticks to the paper.

A laser printer works more like a photocopier. A laser (which is a very

focused beam of light) draws the letters on a light-sensitive roller inside the machine. Then the roller turns and a special process transfers the letters to a piece of paper.

Laser printers are faster and quieter than many other types of printers, and they produce very high-quality print. But they are expensive, and are used mainly by businesses.

Speaking of businesses, a lot of you have been asking how Floppy and I got into the computer business. Back when Floppy was just a pup, he sent away a label from a can of Puppy Platter dog food and got a free canine computer. But the funny thing was, I wound up using it more than Floppy. Before I knew it, I was a computer expert.

Well our next question isn't about dogs, it's about mice. It's from **Katie Hathorn**, 11, of Carrollton, Texas. Katie asks:

"How does a computer mouse work?"

Katie, I once heard of a computer that was powered by a mouse running around a little wheel inside. But most computer mice are shaped like little boxes. They have a long cord that connects them to the computer and a button (or two) on top that the user can press. When you

move the mouse across a table or other flat surface, the cursor on the computer moves the same distance, in the same direction.

Most computer mice have a ball that sits in a socket on its bottom side. When you move the mouse across your desk, the ball rolls. Inside the mouse are mechanical parts which keep track of how far the ball rolls and in which direction. A simple electric signal travels through the wire and the computer uses those signals to move the cursor to the right place.

A newer type of mouse has an electric eye instead of a ball in its "belly." The "eye" can keep track of where the mouse is moving and send the same signal to the computer.

With all those mice moving around, you'll be glad to know that Floppy and I aren't moving at all. We'll be right here next month, ready to answer your computer questions. So if you have any you'd like us to answer, send them to:

The Slipped Disk Show
3-2-1 CONTACT Magazine
1 Lincoln Plaza,
New York, NY 10023

Slipped Disk doesn't have a mouse for his computer, just a couple of gerbils.

Special



Section

TUNE IN TO YOUR LOCAL PBS-TV STATION FOR SQUARE ONE'S ALL-NEW SEASON, STARTING SEPTEMBER 12!

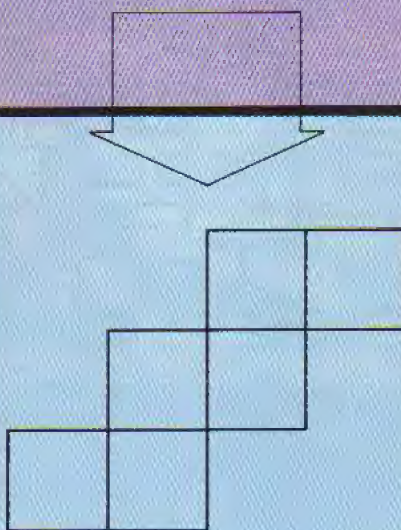
WHERE IS IT HIP TO BE SQUARE?

On "Square One Squares"—one of the wild new game shows on *Square One TV*'s all-new season! Kids will be trying to get three in a row on the big Square One board.

Take a crack at these three yes or no questions. If you get them all, draw a line across the board. You win!

TRUE OR FALSE:

If you cut out this pattern of squares you could fold it up into a cube.



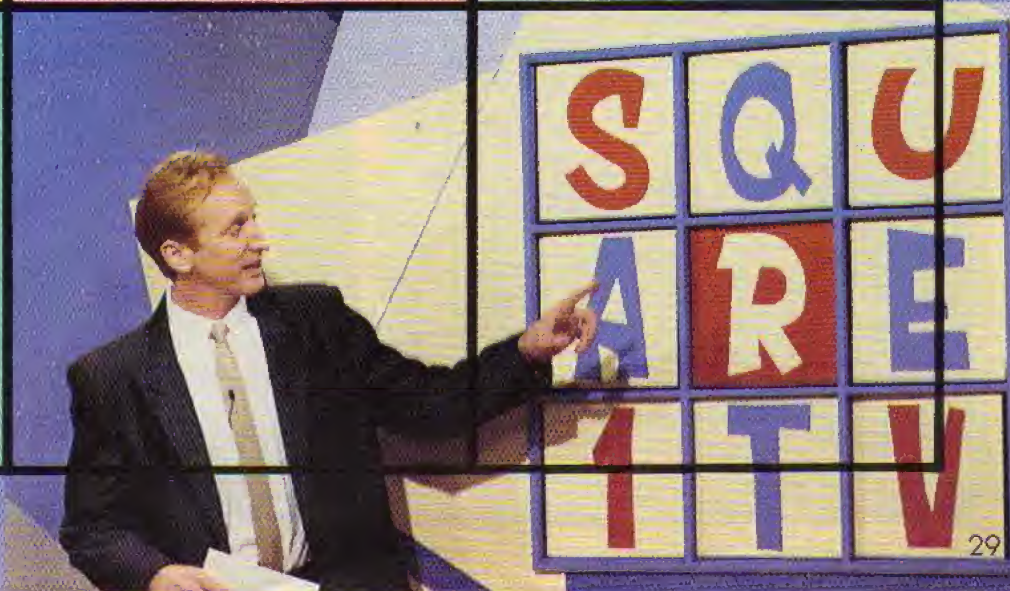
Answers on the Did It! page.

TRUE OR FALSE:

When you were only 12 days old you had already been alive for over a million seconds!

TRUE OR FALSE:

It takes 32 letters to write out the number 80,890.



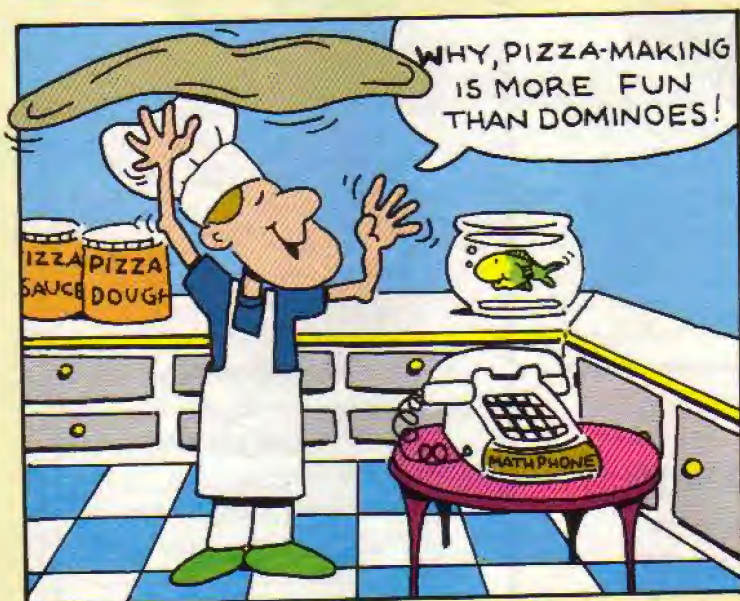


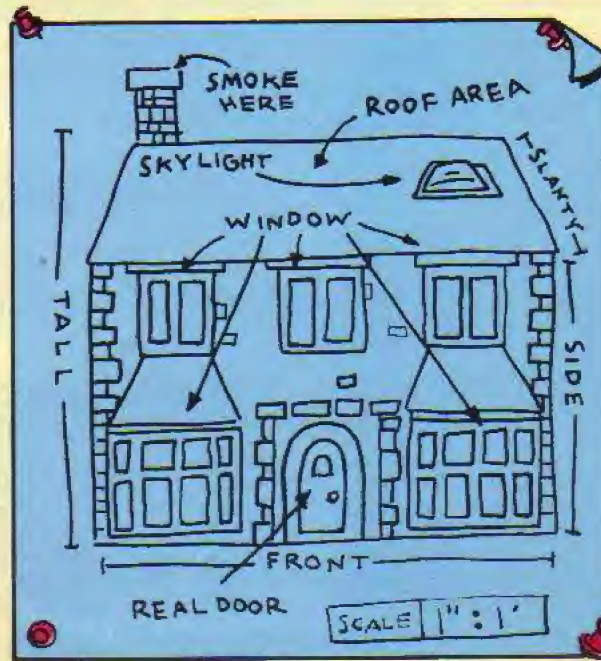
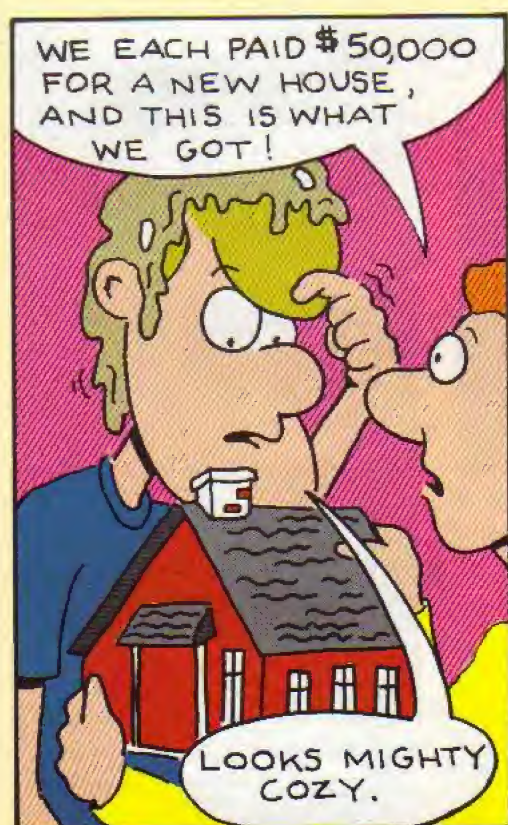
LT. DIRK NIBLICK

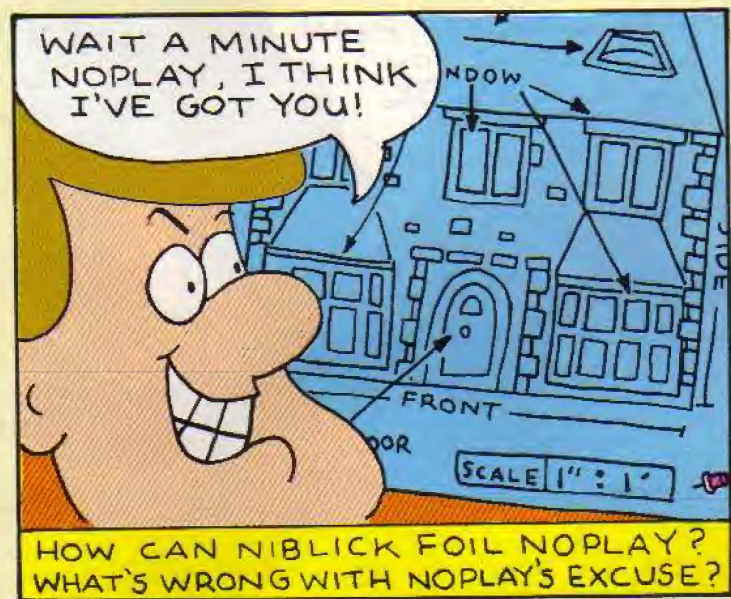
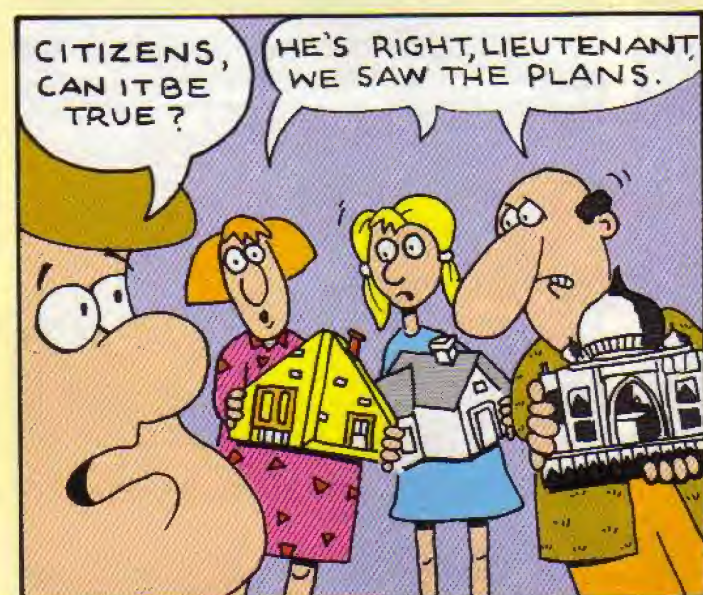
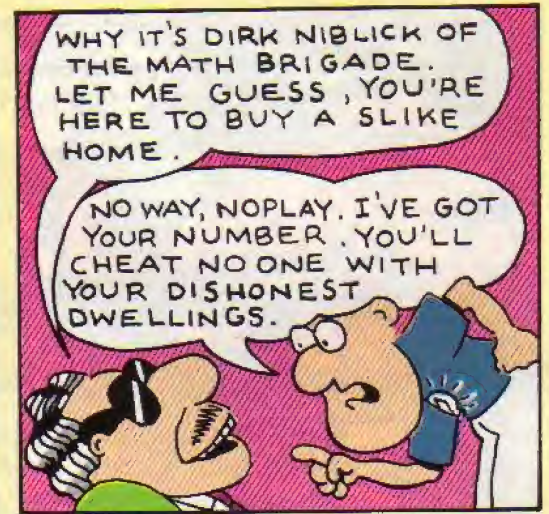
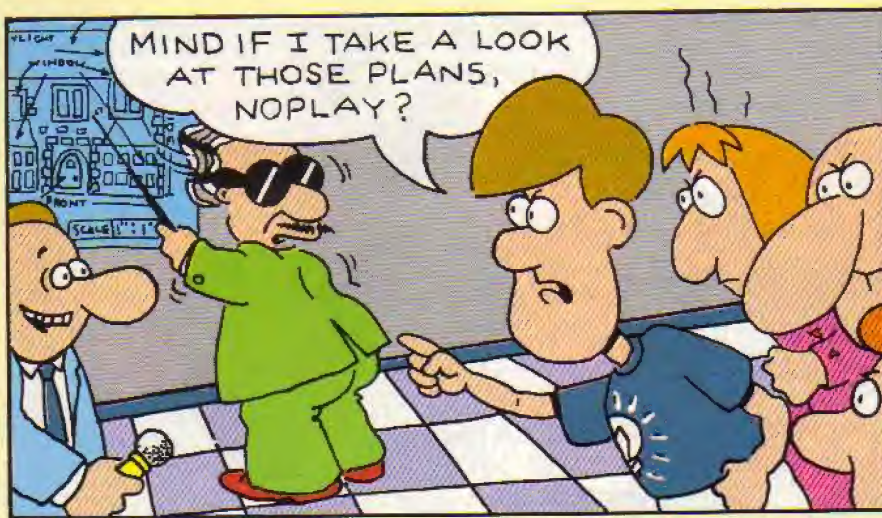
IN

NO PLACE LIKE HOME A SQUARE ONE PUZZLE

STORY: RUSSELL MILLER ART: JIM JINKINS





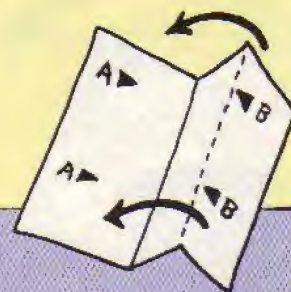


What's wrong with Dawn Sunnythunder's weather report? Fold in to find out.

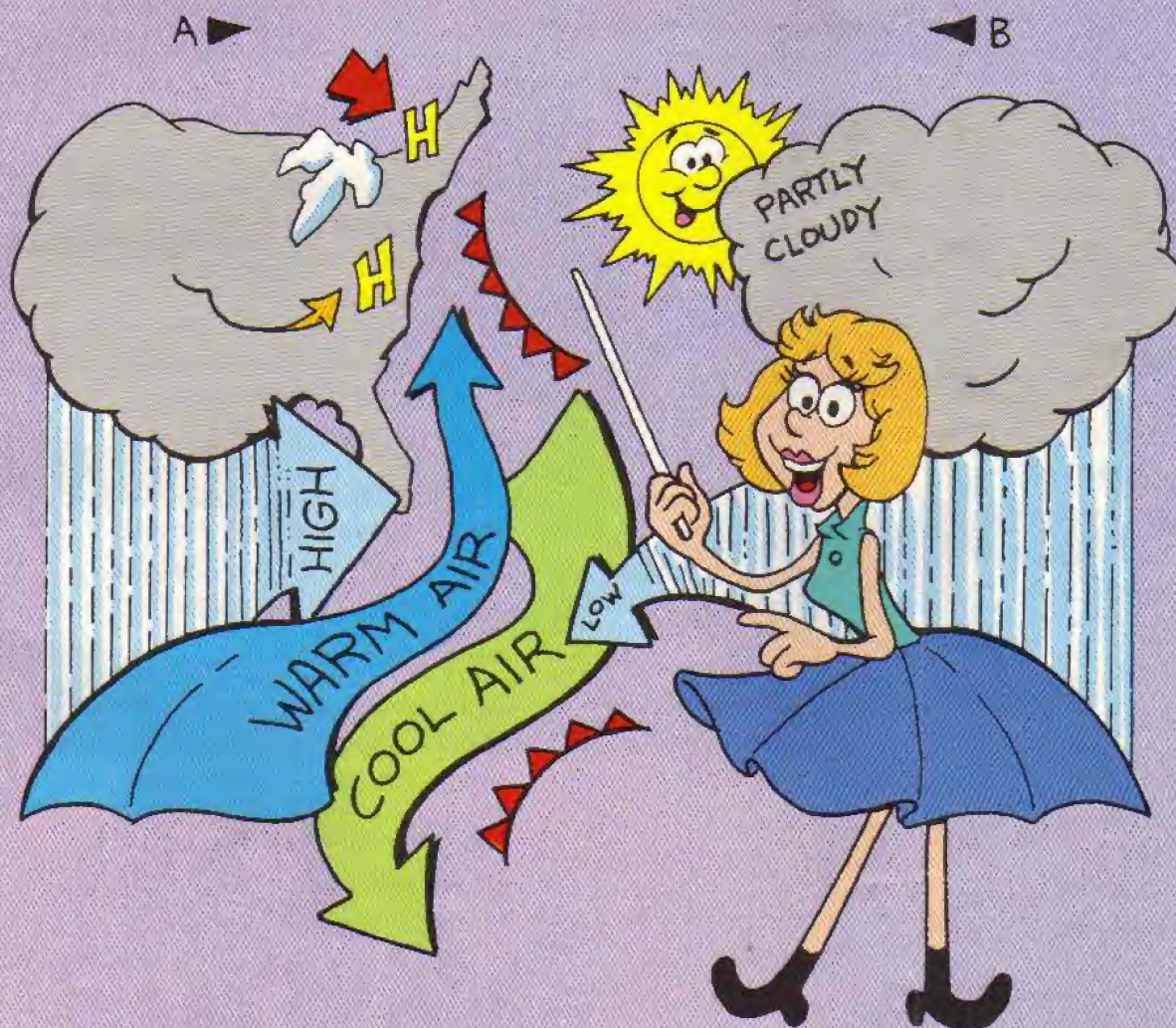
Oh no!! It's another...

SQUARE ONE FOLD-IN

Fold in like this so that 'B' meets 'A'.



Yes, folks! Today we'll have
22 hours
of beautiful sunshine!



DON'T FORGET TO SUBTRACT
10 HOURS AND ANOTHER 50%
OF A DAY BECAUSE OUR
RADARS ARE FAR OUT IN
SPACE!

BLACKSTONE'S *Magic Page*

**HERE'S A CARD TRICK YOU CAN *COUNT ON*
TO BAFFLE YOUR FRIENDS:**

1. Cut out or copy this picture and tape it onto the joker from a deck of cards. (It should cover the joker.)



2. Set up a deck of cards with the Gotchal card as the *16th card from the top*.

3. Hand the deck to a friend and tell them to take 1 to 12 cards off the top of the deck while your back is turned.

4. Now say you're going to do a little mind-reading. Deal 15 cards face down off the top of the deck, in a pile. (Don't count out loud.)

5. Have your friend turn their cards face up, one at a time. Each time, you put your top card face up on top of theirs.

6. When they deal their last card, you will deal your Gotchal card. It works every time.

3·2·1·CONTACT

TV Highlights

October 10 will be a big day for fans of "3-2-1 Contact" TV. That's when the new season begins. You'll journey around the globe—from the ice of Antarctica to the sunny lands of Australia, Greece and the Caribbean.

On your trip, you'll meet fascinating people performing unusual jobs, get a close-up view of exotic animals, and explore life in and around the ocean. Closer to home, you'll get to know you—and your body—better than ever.

To begin your trip, here's a handy-dandy TV guide to the new season. Check your local newspaper to find out what time "3-2-1 Contact" is on in your area.

ANTARCTICA WEEK

MON. OCT. 10 GETTING THERE

Debra discovers that the "layered" look in clothes is definitely *the* look, as she prepares for her visit to Antarctica. As you'll find out, just getting there is an adventure in itself.

TUES. OCT. 11 GETTING AROUND

Surviving in Antarctica is a real skill, as Debra discovers when she learns to get herself out of a dangerously deep crack in the ice.

WED. OCT. 12 LIFE ON THE EDGE

Life in Antarctica is only found around the edge of the continent where the ice meets the water. There you'll visit some year-round residents: Adelie penguins and Weddell seals.

THURS. OCT. 13 LIFE UNDER THE ICE

How come fish don't freeze in the frozen waters of Antarctica? For the whole fishy story, tune in today. And while you're at it, learn why jellyfish may have taken over the oceans.

FRI. OCT. 14 THE DESERT CONTINENT

Visit a U.S. Navy weather station and the people who work there. And go to a place where it hasn't rained or snowed in two million years—where the climate is closer to the planet Mars than anywhere else on Earth.

YOUR BODY WEEK

MON. OCT. 17 TWINS

You're special, you're one-of-a-kind... unless you're an identical twin. Check out this show if you're interested in seeing double.

TUES. OCT. 18 HAVING A BABY

What else besides a Steven Spielberg movie takes nine months to produce? A human baby. Follow a mother-to-be, and get to understand how babies develop in this family half-hour!



WED. OCT. 19 SLEEP

Everyone does it, everyone needs it ...but why? That's what David and Stefanie want to know as they head for a sleep lab. There, they learn about the dreamier side of life.

THURS. OCT. 20 SPINNING

Did you ever wonder why ice skaters and dancers don't get dizzy when they spin 'round and 'round? The secret is right here.

FRI. OCT. 21 YOUR HEALTH

Fly on a rescue mission into the heart of Africa as Todd and a nurse practice saving a life.

AUSTRALIA WEEK

MON. OCT. 23 PLATYPUS AND ECHIDNA

Weird names for weird mammals who lay eggs. You'll only find these critters in and around Australia—the land down under. Join David and Michelle in a strange sport: platypussing.

TUES. OCT. 25 MOTHS AND BEETLES

Looking for a tasty, crunchy healthful snack? David and Michelle cook one up: a moth cooked slowly over a fire. "Yuk!" you say. For David's reaction, watch today.

WED. OCT. 26 EMU AND KOOKABURRA

This show is for our fine-feathered friends, including the bower bird that decorates its nest with anything blue. Blue feathers and blue plastic, to name a blue—oops—few.

THURS. OCT. 27 KOALAS

Tired of the same old food? Pity the poor koala. It eats only eucalyptus leaves. These leaves are low in food value and scientists are trying to figure out how the wild and wooly koala survives.





FRI. OCT. 23 KANGAROOS

If you thought all kangaroos are alike, think again. There are 57 varieties. Learn about some of them, as you discover that in Australia, there are more kangaroos than people. For a hopping good time, tune in today.

STRUCTURES WEEK

MON. OCT. 31 BUBBLE, BUBBLE

This is as close to a soap opera as you'll find—learn the ins and outs of blowing bubbles. Included in this fun episode is a super-special bubble recipe.

TUES. NOV. 1 PIPES AND REEDS

What does your bathroom plumbing have in common with a thatched roof or a bike? They're all made of tubes, one of the most useful building materials around.

WED. NOV. 2 CHAOS AND CRYSTALS

Are two snowflakes ever exactly alike? For the flaky answer, tune in today.

THURS. NOV. 3 RUNNING ROBOTS

Stefanie teaches a robot how to run and jump. It may be the playmate of the future.

FRI. NOV. 4 SUSPENDED IN AIR

Meet some "divers" who perform an amazing feat. They tie vines to their feet and jump from a 90-foot tower. Will the vines keep them alive as they fall? The answer to that cliff hanger is in today's show.

GREECE WEEK

MON. NOV. 7 THE JOURNEY BEGINS

Explore an island in Greece which is thought to be the location of the lost city of Atlantis. And get a close look at a volcano that is reappearing from under the sea.

TUES. NOV. 8 UNDER THE ASH

Archeologists are digging up a lost city that was buried for 3,000 years under volcanic ash. Slowly, the scientists are piecing together how people lived in ancient times.

WED. NOV. 9 BEFORE HISTORY

Take a donkey ride to the highest point on an island. This is travel the way it used to be.

THURS. NOV. 10 SHEEP AND CHEESE

How is sheep cheese made? First you take a sheep and get the milk from it. Then you take your time. This sure beats Velveeta.

FRI. NOV. 11 THE PARTHENON

Visit one of the greatest structures ever built. Then take a trip aboard an ancient boat that is rowed by young people from all over Greece.

ISLAND WEEK

MON. NOV. 13 PARROT FISH

Parrot fish are called "cows of the sea." These grazers eat algae from dead coral. Some of the coral passes through their bodies and comes out as sand—the soft silky stuff that is the favorite of many beach-lovers.

TUES. NOV. 13 LIZARDS

Blue lizards that are really green are the focus of today's show. What's so special about these creeping reptiles? For one thing, they eat plants instead of insects. For another, they can lose their tails and grow them back again. It's quite a tale.

WED. NOV. 13 CORAL

Coral—an important part of ocean life—start off as babies looking for a place to settle down. For the history of coral and a coral reef, check out today's episode.

THURS. NOV. 17 FLAMINGOS

Gorgeous pink flamingos are all over the Caribbean island of Bonaire. Visit a flamingo rookery (the only nesting grounds in the Caribbean for these birds) and see them up close.

FRI. NOV. 18 CONCH

Debra and Todd help to raise an important food source: conch. (You may know these animals' famous shells.) Join them as they raise some conch babies, starting with a 120-foot dive for eggs.

3-2-1 Contact Extra

A special half-hour show on AIDS will be broadcast October 2 on your local PBS station. Check your newspaper for exact time and date.



Extra!

by Russell Ginns

Button up your space suits, this month's EXTRA! is out of this world!

It Came from Outer Space

Life in outer space? It hasn't been proven yet. But movies have already made up a whole bunch of creatures from outer space. How many of them can you find in our word search?

Look across, backwards, up and down. The leftover letters will spell the name of a famous monster from planet Earth!

~~TRIBBLES~~
~~WOOKIES~~
~~KLINGONS~~
~~ROMULANS~~
~~EWOKS~~
~~VULCANS~~
~~JAWAS~~
~~GREEN SLIME~~
~~TRIFFIDS~~
~~DALEKS~~
~~GORT~~
~~GHHRA~~
~~ULTRAMAN~~
~~YODA~~
~~THE BLOB~~
~~AUDREY TWO~~
~~DAGORA~~
~~YOG~~

S	G	W	O	O	K	I	E	S	O	E
N	E	D	J	A	W	A	S	N	G	M
O	W	T	Y	E	R	D	U	A	O	I
G	O	V	T	D	O	Z	B	M	R	L
N	K	U	R	A	M	G	O	A	T	S
I	S	L	I	G	U	H	L	R	I	N
L	K	C	F	O	L	I	B	T	A	E
K	E	A	F	R	A	D	E	L	D	E
Y	L	N	I	A	N	R	H	U	O	R
O	A	S	D	L	S	A	T	L	Y	G
G	D	A	S	E	L	B	B	I	R	T

Check the Did It! page for the answer.

Godzilla

Name That Shuttle

NASA—the U.S. space agency—is having a contest to name the new space shuttle that will be launched in 1991. In order to enter, you must be part of a team of students led by a teacher. For more information, ask your teacher to write to:

NASA Orbiter-Naming Program
Council of Chief State School Officers
400 North Capitol Street, N.W.
Washington, DC 20001

Basic Training

Haunted Hacker

Here's a "frightful" computer puzzle for you to play—just in time for Halloween. You're trapped inside a haunted house (what else?) and the only way to open the front door is by finding the right magic words. (No, they're not "Please" and "Thank You," although even ghosts appreciate politeness.)

Your job is to find the magic words and use them to open the front door. Just follow the instructions and remember to keep track of where you are as you move from room to room.

The program is written for Apple II computers. To use it on Commodore 64/128 machines, change all HOME statements to PRINT CHR\$(147). For IBM and compatibles, change HOME to CLS.

Have fun and here's hoping you have a happy and spooky Halloween!

Apple II

```

10 DIM ES(4),EX$(4),M$(4),IS(4)
20 I = 1:S = 0
30 FOR X = 1 TO 4
40 READ A$:EX$(X) = A$
50 READ A$:M$(X) = A$:NEXT X
60 FOR X = 1 TO 4
70 READ A$:IS(X) = A$:NEXT X
80 REM ROOM ONE
90 HOME :E = 3:ES(1) = EX$(1)
100 ES(2) = EX$(2):ES(3) = EX$(3)
110 PRINT "YOU ARE IN A DARK HALLWAY"
120 PRINT "THERE IS A LARGE DOOR IN FRONT OF YOU."
130 PRINT "IT IS FIRMLY LOCKED."
140 PRINT "ON THE DOOR ARE THESE LETTERS"
    
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150 PRINT : PRINT IS(I): PRINT
160 PRINT "DO YOU WANT TO TRY A MAGIC WORD? Y/N"
170 INPUT A$: IF A$ <> "Y" THEN 290
180 HOME : PRINT "ENTER WORD"
190 INPUT M1$:G = 0
200 FOR X = 1 TO 3
210 IF M1$ = M$(X) THEN M$(X) = "000":G = 1
220 NEXT X
230 IF G = 1 THEN GOSUB 1200
240 IF I = 4 THEN GOTO 1060
250 PRINT "DO YOU WANT TO TRY AN OTHER WORD? Y/N"
260 INPUT A$
270 IF A$ <> "Y" THEN 290
280 GOTO 180
290 PRINT : GOSUB 1120
300 ON C GOTO 660,790,320
310 GOTO 80
320 REM ROOM TWO
330 HOME :E = 2:ES(1) = EX$(1)
340 ES(2) = EX$(2)
350 PRINT "THIS IS A SMALL ROOM"
360 PRINT "THERE IS A CLOSET IN ONE WALL."
370 PRINT "THE DOOR IS OPEN."
380 PRINT "DO YOU WANT TO GO IN? Y/N"
390 INPUT A$
400 IF A$ <> "Y" THEN 450
410 HOME : PRINT "YOU WALK INTO THE CLOSET."
420 PRINT "AND THE DOOR SLAMS SHUT BEHIND YOU."
430 PRINT "YOU ARE TRAPPED!!"
440 GOTO 1110
450 PRINT : GOSUB 1120
460 ON C GOTO 80,480
470 GOTO 320
480 REM ROOM THREE
490 HOME :E = 1:ES(1) = EX$(4)
500 PRINT "THIS IS AN EVEN SMALLER ROOM."
510 PRINT "THERE IS A LARGE FIREPLACE"
520 PRINT "A HUGE BLACK KETTLE IS BUBBLING"
530 PRINT "OVER THE FIRE": PRINT
540 PRINT "WOULD YOU LIKE TO TASTE WHAT'S COOKING? Y/N"
550 INPUT A$
560 IF A$ <> "Y" THEN 600
570 HOME
    
```

ILLUSTRATION BY MARTIN LEWIS


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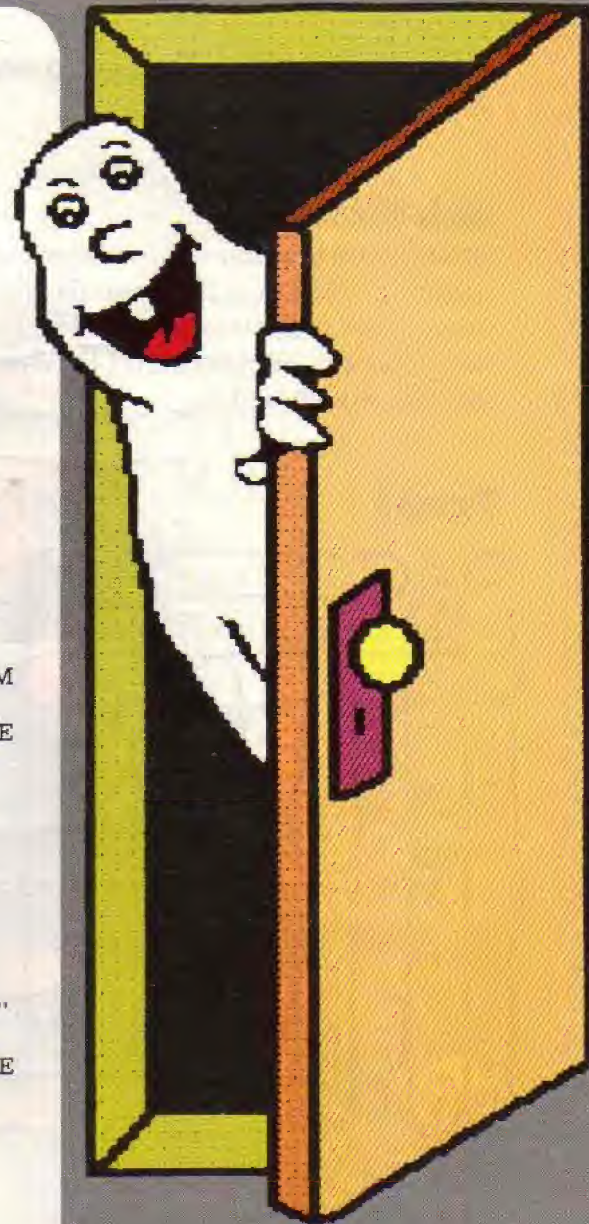
580 PRINT "IT'S ALPHABET
SOUP!"
590 PRINT "THE LETTERS IN
YOUR SPOON SPELL OUT
THIS WORD: TERROR"
600 PRINT : GOSUB 1120
610 ON C GOTO 320
620 GOTO 480
630 PRINT : GOSUB 1120
640 ON C GOTO 320
650 GOTO 620
660 REM ROOM FOUR
670 HOME : E = 1: E$(1) = EX$(3)
680 PRINT "YOU ARE IN A DARK,
DRAFTY ROOM."
690 IF S = 1 THEN 760
700 PRINT "YOU SEE BARS TO A
PRISON CELL"
710 PRINT "SOMEONE IS
MOANING INSIDE!"
720 PRINT "THE DOOR IS OPEN
- DO YOU GO IN? Y/N"
730 INPUT A$
740 IF A$ <> "Y" THEN 760
750 GOTO 920
760 PRINT : GOSUB 1120
770 ON C GOTO 80
780 GOTO 660
790 HOME : REM ROOM FIVE
800 PRINT "YOU ARE IN A LONG
HALL."
810 PRINT "AT THE FAR END, A
GHOST SITS ON A THRONE."
820 PRINT "DO YOU WANT TO
TALK TO THE GHOSTS? Y/N"
830 INPUT A$: IF A$ <> "Y"
THEN 880
840 HOME: PRINT "YOU WALK
TO THE GHOST,"
850 PRINT "THE GHOST
DISAPPEARS."
860 PRINT "YOU FOLLOW IT
AND GET LOST!!"
870 GOTO 1110
880 PRINT "YOU RUN BACK THE
WAY YOU CAME."
890 PRINT "THE GHOST
SCREAMS A WORD AT YOU:
HORROR"
900 FOR DE = 1 TO 3500: NEXT
DE
910 GOTO 80
920 REM ROOM SIX
930 HOME : E = 1: E$(1) = EX$(4)
940 PRINT "YOU ARE IN A
PRISON CELL."
950 PRINT "A SKELETON IS
CHAINED TO ONE WALL."
960 PRINT "IT HAS A PIECE OF
PAPER IN ITS MOUTH."

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970 PRINT "DO YOU TAKE THE
PAPER? Y/N"
980 INPUT A$
990 IF A$ <> "Y" THEN 1030
1000 HOME : S = 1
1010 PRINT "THE SKELETON
SAYS, 'THANKS'"
1020 PRINT "ON THE PAPER IS
THE WORD: FEAR"
1030 PRINT: GOSUB 1120
1040 ON C GOTO 660
1050 GOTO 920
1060 REM END ROUTINE
1070 PRINT : PRINT
1080 PRINT "THAT WAS THE
LAST MAGIC WORD!"
1090 PRINT "THE DOOR SWINGS
OPEN!"
1100 PRINT "YOU STEP
OUTSIDE!"
1110 PRINT "GAME OVER": END
1120 REM EXITS
1130 PRINT "BY THE LIGHT FROM
YOUR TORCH"
1140 PRINT "YOU CAN SEE THESE
EXITS:"
1150 FOR X = 1 TO E
1160 PRINT X; " "; E$(X): NEXT X
1170 PRINT "CHOOSE ONE BY
NUMBER"
1180 INPUT C
1190 RETURN
1200 REM INSCRIPTION
1210 HOME : PRINT I$(I)
1220 IX$ = I$(I): I = I + 1: A$ = " "
1230 FOR X = 1 TO LEN (IX$)
1240 FOR DE = 1 TO 300: NEXT DE
1250 HOME
1260 A$ = A$ + MID$ (I$(I), X, 1)
1270 PRINT A$: NEXT X
1280 IF I = 4 THEN 1300
1290 PRINT : PRINT "SORRY,
YOU'LL NEED ANOTHER
MAGIC WORD."
1300 RETURN
1310 DATA EAST, HORROR,
SOUTH, TERROR, WEST,
FEAR, NORTH, OUT
1320 DATA HKTASN OFR
SVIITNG E CMO NAIGA
NOOS
1330 DATA TASNHK ROF
VSIINTG C EMO ANIGA
ONOS
1340 DATA THASKN ORF
VSIITNG E COM AGINA
OONS
1350 DATA THANKS FOR
VISITING COME AGAIN
SOON

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Send Us Your Programs

If you've written a program you'd like us to print, send it in. If we like it, we'll print it and send you \$25. Include a note telling us your name, address, age, T-shirt size and type of computer.

All programs must be your own original work. We cannot return programs. Please do not send disks.

Send your program to:

Basic Training
3-2-1 CONTACT Magazine
1 Lincoln Plaza
New York, N Y 10023

—Did It!—

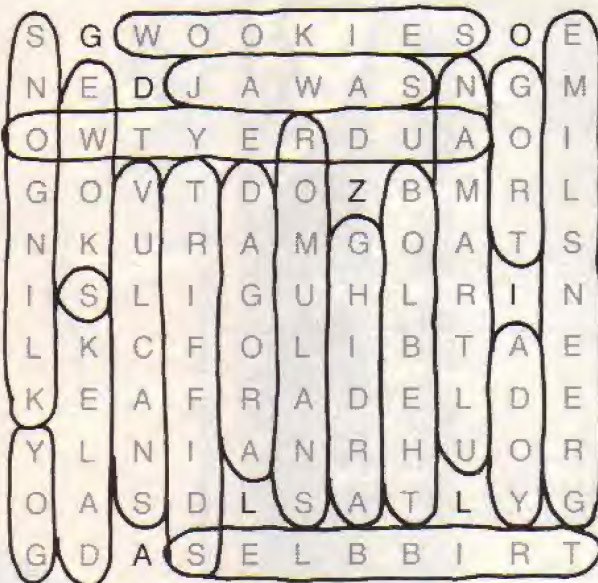
Where Is It Hip To Be Square?

All three statements are true.

Dirk Niblick

Noplay said the plans showed houses 20 inches tall, but they're drawn *to scale*. One inch on the plan stands for one foot of real house. Slike's homes should have been 20 feet tall, not 20 inches!

Extra!



Answer: Godzilla

A Dit Too Tricky

Our July/August '88 Blackstone page confused a lot of you. In the trick, the magician guesses the sum of 10 numbers without looking at the numbers. The magician does it by multiplying the seventh number in the list by 11. For the complete instructions, you'll have to turn back to that issue. But remember, the seventh number times 11 equals the sum of all 10 numbers!

Next Month!

Here's a look ahead to the November 1988
3-2-1 CONTACT:

Making Wildlife Films

Meet some of the people who make movies and TV shows about wild animals. These photographers have one of the hardest jobs around.

Talking Without Speaking

People communicate with more than just their voices. Find out what you may be saying—without meaning to—in this feature.

Money Goes to Pieces

What happens if your money gets eaten by maggots or moldy from mildew? There is a group of people who may be able to help you out!

**Plus A Very Funny Story
About a House of the
Future, Factoids, Square
One Puzzles and
Games, Basic Training,
and Much, Much More!**

HOLIDAY FUN

**Gifts that keep
on giving for the
entire year...**

**from
Children's
Television
Workshop**



Sesame Street Magazine (for ages 2-6)—Big Bird and all his friends bring poems, stories, games and other learning activities in ten terrific issues a year...Plus with every issue of Sesame Street Magazine there's a 24-page plus Parents' Guide as a Bonus for You! It's loaded with helpful articles on child development and gives you ideas on how to increase your child's participation with each issue. 10 issues (1 yr.) for just \$12.97!

Kid City Magazine

(Formerly the Electric Company Magazine) Perfect for Sesame Street Graduates! It's amusing, playful, absorbing, and educational for beginning and young readers ages 6-10. Give ten colorful issues filled with stories, puzzles, games, cut-outs, jokes...and sunny smiles, for just \$12.97!

3-2-1 Contact—Entertaining and informative adventures in science and technology for 8 to 14 year olds. Each of CONTACT's ten big issues is packed with puzzles, projects, experiments and colorful feature stories. PLUS computer programming, software and book reviews, and challenging Square One TV math puzzles and games. A fun, involving way to learn and yours to give for just \$13.97!

**If the order card is missing, please
send your order, along with a check
made out to the desired magazine, to:
Children's Television Workshop
One Lincoln Plaza
New York, NY 10023**

"I COULDN'T STOP
LAUGHING!"
MARTY CASEY, AGE 10.

"THE MONKEY IS
SO FUNNY!"
SHELLY BILYEW, AGE 12.

"IT'S RAD!"
ERNIE WOOD, AGE 12.

"BEST MOVIE IN
THE WORLD!"
GARY BRUCKER, JR., AGE 8.

Going BANANAS

GO TOTALLY BANANAS WITH DOM DeLUISE AND AN OUT-
RAGEOUS TALKING CHIMP ON THE WORLD'S WACKIEST SAFARI!

ON VIDEOCASSETTE.

